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Family power and decision-making: Beyond the husband-wife dyad

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FAMILY POWER AND DECISION-MAKING:

BEYOND THE HUSBAND-WIFE DYAD

by

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APPROVAL PAGE

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The major conceptual focus of this research was to expand systematically the investigation of family power beyond the marital dyad. The purposes of the study were (a) to test two theories of coalition formation in families, and (b) to test the reliability and validity of an instrument designed for measuring family coalitions.

Using data from 24 two-parent, two-children, nonclinical families, this research examined the types of coalitions and the conditions under which they develop in a conflictual family decision-making situation. The data were collected via questionnaires, face-to-face interviews, and videotaped family interactions.

Of the six hypotheses developed from the two coalition formation theories, only one was supported. In this sample, families with strong parental coalitions tended to have stronger sibling coalitions than parent-child coalitions. The data failed to show any particular coalition pattern between the weaker parent and the children. No empirical evidence was found to support the predominance of parent-child over child-child coalitions under the conditions of nearly equal status parents without a strong parental coalition. Neither age differences nor sex differences in the sibling pair proved to be related to the strength of the sibling coalition. The findings indicated that coalition patterns appear to maintain power differences between parents and children and mothers received more support than any other family member.

However, it cannot be claimed that the coalition theories have been tested adequately since the dependent variable did not prove to be valid. Family coalitions, measured by the proportion of supportive statements

made between dyads in a family, was not corroborated by either clinical observation of videotaped family interaction or family members' written reports of family coalitions, power, and decision outcomes. Furthermore, the experimental task of a 10-minute family decision about the use of a given sum of money probably could not measure subtle and real power and coalitions in families. However, this research added an important step in the continuing effort to develop valid and reliable measures of family power. The observation and videotaping of whole families made an important contribution to family research methodology.

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CHAPTER I

INTRODUCTION AND REVIEW OF LITERATURE

Family power relationships and decision-making patterns have been topics of major interest to family scholars for at least two decades or longer. However, a number of scholars have identified significant limitations in the research in these areas. Safilios-Rothschild (1970), in reviewing family power research, concluded that theories about power structure would not become more sophisticated until they included all aspects of power and from the point of view of all contributing family members. A decade later McDonald (1980) noted explicitly that one major conceptual problem has been the continued usage of the term "family power" when, in fact, the unit of analysis was the husband-wife dyad. He argued that such studies systematically excluded the possible power of children and other members of the kinship network. McDonald reiterated Safilios-Rothschild's earlier position and stressed the importance of examining power relationships between siblings and parents, among siblings, and among extended family members. McDonald concluded:

> We need an explicit concern for collective power dynamics and coalitional processes in multiple-member family groups. If "family power" is truly to be studied, systematic efforts must be made to expand investigation beyond the marital dyad. (p. 851)

The continuing focus on the husband-wife power relations and decision-making processes has occurred largely because of theoretical and methodological limitations. Szinovacz (1987) identified the neglect of coalition formation as one major shortcoming of past family power research. To study coalition formation in families means to study family

processes which are embedded in family history, subject to constant change, and most likely vary over different family domains. In conceptualizing and measuring family coalitions we cannot ignore past relationship history or ongoing exchange processes. We cannot even trust that the behavior patterns revealed by our subjects during a game situation in the laboratory adequately represent their behavior patterns "behind closed doors" (M. Szinovacz, personal communication, November 3, 1986).

Coalition theory (Blood, 1972; Caplow, 1968; Collins & Raven, 1969; Gamson, 1961a, 1961b; Kahan & Rapoport, 1984; Vinacke & Arkoff, 1957), as developed initially to explain behavior in small groups, has proven effective for the analysis of family power. The purposes of this study were (a) to test hypotheses derived from coalition theory as they apply to the family group, (b) to test the viability of a decision-making game for simulating family decision-making processes, and (c) to test the reliability and validity of a measure of coalitions in families.

Statement of the Problem

The family exerts a powerful influence on its members, especially the children, yet few measures exist which assess family interaction as a whole. Most measures of family interaction have assessed only the interaction of the husband-wife dyad and the mother-child dyad or have centered on families with a behavior-disordered child. Interaction measures for whole normal (nonclinical) families which do exist often have limited reliability and validity or are difficult and time consuming. The major objective of this study of whole nonclinical families was to provide a valid and reliable measure of power which

identifies the variety of coalitions formed in normal families. In addition, this study was designed to generate empirical evidence to challenge the belief that coalitions other than parent-parent coalitions are pathological.

Most research on coalitions in the family has assumed that parent-child and sibling coalitions are pathological (Goffman, 1969; Laing & Esterson, 1964; Lidz, 1973). The implication is that any strong coalition besides the parent-parent coalition upsets the balance of power. Furthermore, it is implied that a weak parent-parent coalition allows parent-child coalitions and child-child coalitions to form. Such coalitions are viewed as dysfunctional. Yet to the extent that parent-child and child-child coalitions in stable nonclinical families exist, and can be predicted, the assumption that they are pathological is unwarranted.

Much of the research on decision making has used tenets of social exchange theory (Scanzoni, 1979; Thibaut and Kelley, 1959). From this theory it is assumed that suggestions made by family members are heard as alternatives for choices and that the decision to accept or reject the suggestion will be based on some ratio of cost and reward. It is further assumed by exchange theory that an agreement with a suggestion is rewarding. When a person receives agreement from several family members, it can be assumed that power resides in that person or collective power resides in that dyad, triad, or group. These agreements between family members can be conceptualized as coalitions. Coalitions are formed when a person decides to join another person in a joint use of resources after deciding that such an arrangement would be profitable.

This study examined the decision-making processes of two-parent, intact, nonclinical families with two children. The major research questions addressed were: (a) Under what conditions do parent coalitions form in nonclinical families? (b) Under what conditions do sibling coalitions form in nonclinical families? and (c) Under what conditions do parent-child coalitions form in nonclinical families?

Information generated from this study of two-parent nonclinical families should provide a benchmark or normative group to which family professionals can compare other groups of families with special circumstances or needs. The ultimate goals of the study were to refine instruments which can be used to assess families in clinical and research settings, and to learn more about family interaction patterns. More information is needed about positive family models and what healthy families are like to better inform our efforts to strengthen families in distress. The two purposes of this study, therefore, were (a) to test two theories of coalition formation in families, and (b) to test the reliability and validity of an instrument designed for measuring family coalitions.

Scope of the Study

This research was part of a larger study on interaction patterns of normal (nonclinical) families. Financial support was provided through a University of North Carolina Junior Faculty Development Award. The principal investigator of the funded project was Nancy J. Warren, Ph.D., Department of Psychiatry, School of Medicine, University of North Carolina at Chapel Hill.

In addition to family decision-making processes, other aspects of family interaction were examined. Observations of family play interaction were coded by using the Family Interaction Rating System (FIRS) developed and tested by Warren et al. (1983) in earlier research with nonclinical, single-parent families. Further testing of the reliability and validity of the FIRS was conducted using the data generated from the nonclinical, two-parent families.

Findings from this larger study of nonclinical, two-parent families have been compared to results from studies of two other groups of families: nonclinical single-parent families and families in which there is a severely disturbed, hospitalized child. Differences in family interaction patterns of these three groups have been examined and an assessment has been made to determine the ability of the developed measures to detect clinical problems in families.

The focus of the present study is one component of the larger study. This part of the larger study is more narrow and specific to family power and decision-making processes. In particular, this research attempted to define and assess the concept of coalitions in families using multiple family members in the process. The often neglected issues of reliability and validity, which are crucial in this area, were addressed. This research tested theoretical assumptions about the nature of coalition development in families, as opposed to merely describing the phenomena. Finally, this research included observational as well as self-report data.

Conceptual and Methodological Issues

Conceptual Issues

Although Sprey (1975) argued that family researchers are at a "pre-paradigmatic" stage of development in their efforts to make theoretical sense of power in families, he still attempted to define power as an attribute of individuals or of relationships. He questioned the analytical fruitfulness of his individual category but contended that power as a relational concept had greater potential for explaining interpersonal relationships in families.

Sprey (1975) raised a number of critical questions related to the organization of power in families. For example, he wondered how to account for the power of the powerless in marriages and families. He also wondered how individuals without authority or other resources manage to influence the family decision-making process. He cited as examples housewives in patriarchal families and children in most families. Sprey argued that the availability of a given resource is a necessary condition for its use; but the absence of a resource among other family members may serve to limit or neutralize its usefulness for those who do have access to it. An example might be a child's use of ignorance to counteract a parent's expertise in a given dispute.

Other researchers have expressed concerns about the language of family power in that it usually refers to individual power potential or influence effectiveness rather than to some property unique to the family group itself. Weiting and McLaren (1975) noted that when information is required about every member of a group and then individual relationships to the whole group or each other part is needed, the technology of

research becomes complex and demanding. Although laborious and expensive, research involving long-term and repeated observations of operating family units may hold tremendous potential for determining the rules governing the power operations of family groups.

Broderick (1975) has also been interested in the rules or governance of power in family groups. He suggested that the importance of power as a facet of interaction varies not only from family to family, but within families, from topic to topic and relationship to relationship. Common observation suggests that families do not operate consistently in a single mode, but vary over time and situation. Broderick contended that the family can be described usefully only if each major area of decision-making is evaluated separately and if the husband-wife relationship is viewed separately from parent-child and sibling inter-relationships.

Olson, Cromwell and Klein (1975) concluded that the complexity of family power has to date eluded even the best of studies because of the failure to deal with the numerous conceptual and methodological issues. Investigators of family power have approached the phenomenon with ideas which restricted their perception to only parts of the issue, with little understanding about how these parts fit together into one integrated system.

Szinovacz (1987) addressed the issue of lack of clarity regarding the construct of family power by proposing the following definition:

> Power is defined as the net ability or capability of actors (A) to produce or cause (intended) outcomes or effects, particularly on the behavior of others (O) or on others' outcomes. (p. 652)

The majority of studies of power within the family have focused on the power of parents. Sutton-Smith and Rosenberg (1968) noted that such

approaches explain events within a social system (the family) in terms of only one type of agent within that system (the parents). Yet, any adequate social system theory demands the acknowledgment of the power of other members of the family system (the children).

If we accept as a premise that children do have power in families, then we might also assume that children's power could be explained by theoretical notions similar to those applied to marital power. Scanzoni (1979) argued that there were four important issues that needed to be considered when attempting to expand theoretical models to encompass children's as well as parent's power. First, resources increase and therefore power increases with the child's age. Second, family rules tend to prescribe subordination of children's interests to those of their parents. Third, there will tend to be greater conflict as young children's power grows and their subordination is continued. Fourth, coalitions will form between children against the parents or between a child(ren) and a parent against the other parent.

The behavior of interest in this research was decision making within the family system. Tallman (1970) delineated an important distinction between problem solving and decision making. Problem solving refers to behaviors which individuals or groups choose and implement in order to achieve desired ends. Decision making, on the other hand, reflects a general process of determining actions whether or not outcome is assured. As a matter of fact, some families may devote inordinate amounts of energy to problems of internal organization and, therefore, render themselves unable to mobilize resources to achieve other family ends.

Methodological Issues

Decision making has most often been studied in small, ad hoc experimental groups. Structurally the family is a small group. Therefore, as far as structural variables are concerned, generalizations derived from small group research should be applicable to the family. Tallman (1970) noted that any attempt to transfer principles from small group research to the study of families would require certain modifications and specifications. For example, the ad hoc experiment allows for the manipulation and observation of variables devoid of as many confounding influences as possible. This clearly creates unnatural situations and therefore attempts to transfer findings from such research to research with natural groups will require the reintroduction of those confounding variables intrinsically linked with the group being studied.

It is desirable to examine the range, adequacy, and propriety of the research methods commonly employed to gather knowledge about family power and decision-making processes. Klein, Jorgensen, and Miller (1978) found such stock taking to be a humbling experience in that much of the extant research evidence was based upon inadequate or inappropriate methodological designs. However, they used this task as an opportunity to signal new directions that researchers might take in the future to improve upon past efforts.

Klein et al. (1978) identified two major approaches to the study of family interaction (i.e., the survey and direct observations in a field, laboratory, or clinical setting). They concluded that although survey techniques (the questionnaire and the interview) have been used freely in the study of reciprocal intrafamily influences, their usefulness has

proven to be quite limited. They contended that the study of reciprocal processes virtually demands that family members be directly observed by the researcher in a field or laboratory setting. Self reports by family members may be invalid because of the respondents' lack of awareness or insensitivity to the nature of reciprocal causality in their day-to-day interactions. The respondents' position in the family system may color their perceptions of the reciprocal nature of family interaction. Klein and his associates concluded that we can only infer reciprocal effects when using survey techniques.

The direct observation method, according to Klein et al. (1978), was found to be more appropriate for observing the actual behavior of family members. They also warned the family researcher of potential problems with the validity of direct observational methods, such as artificiality of setting, behavioral sampling and coding difficulties, and reactivity due to experimenter effects. Some of the advantages of the observational method are these: (a) the method allows more direct contact with family members; (b) behavior and mutual effects are brought much closer to the investigator's own sensory capabilities; and (c) a more empirically sound basis exists for drawing valid generalizations about reciprocal, dynamic interactions among family members.

O'Rourke (1963) measured the decision-making behavior of three-person family groups in their homes as well as under laboratory conditions. He found that the balance between social-emotional and instrumental behavior varies significantly as the place in which the interaction occurs and the sex of the child in the three-person group changes. Both the quantity and quality of the groups' interactive

behavior changed as they moved from home to laboratory (i.e., the positivity of fathers and children decreased as they moved from home to laboratory while that of mothers increased). O'Rourke concluded that families seen only in the laboratory will experience more disagreement among members, will be more active but less efficient in decision-making and will register less emotionality than if they were observed in their "natural" environments. Consequently, the laboratory situation works a definite distortion, albeit varying from group to group, on the experimental outcomes. This becomes a critical issue if generalization beyond the laboratory situation is the object of the research.

Cromwell, Klein, and Weiting (1975) emphasized the importance of multitrait-multimethod analysis of family power relationships. They discussed the advantages of using such observational tools as SIMFAM (Straus & Tallman, 1971) and "Reciprocity" (Osmond, 1978) in the analysis of family interactional patterns. Both of these tools are social simulation games that were developed to study the dynamics of power relationships in the context of marriage and the family. Klein, Jorgensen, and Miller (1978) concluded:

> Viewing research designs as multidimensional phenomena may permit us to seek out novel combinations of existing methods or at least alert us to the sacrifices that must be made in any choice of method. (p. 132)

The potential benefits of measuring multiple family members have been stressed. However, researchers working with data sets from multiple family members struggle with serious problems, especially at the data analysis stage. Miller, Rollins and Thomas (1982) argued that many of the problems result from analyzing data coming from correlated measures. In data sets where two or more family members' responses are gathered,

does it follow that the dyad or the family then is the unit of analysis? If so, resultant constraints drawn from the data will be important for problems of statistical test and inferences based on a given population.

Other important considerations must be made when using multiple family members' responses. Notarius and Markman (1981) outlined three of these considerations. First, the reliability estimate must be computed on the same units of analysis that are used to test the hypotheses under study. Second, reliability must be estimated on the data set that is a part of the study being reported. And, finally, both an interobserver agreement index and generalizability coefficients should be reported, as both give important information.

Theoretical Background for Family Power Analysis

Exchange Theory

Much of the research on decision making in small groups has been grounded in social exchange theory. However, the transfer of this theoretical framework to the study of family decision making has been a relatively recent phenomenon. Thibaut and Kelley (1959) proposed that a dyad engaged in a mutually satisfying relationship will exchange behaviors that have low cost and high rewards to both members. Gottman et al. (1976) posited an alternative interpretation of dyadic behavior in families. It was noted that a person will perceive a relationship as satisfying to the extent that he or she codes the behaviors received as positive. Also, the fact that we do not know a family member's comparison level for alternatives suggests a phenomenological method for measuring payoff. Therefore, if one employs social exchange theory as a framework for analysis, then it might be necessary to design a

measurement procedure to determine the positivity of the behavior received. Gottman et al. proposed that the behavior received would be coded directly by the receiver (i.e., the family member).

Coalition Theory

Coalition theory was the major theoretical framework for the present study. Gamson (1969) defined a coalition as the joint use of power by two or more units to control a decision. Coalitions not only influence outcomes in decision making, but they also dramatically affect the distribution of power in any group. There is an extensive mathematical, theoretical, and empirical literature on coalitions. Coalition theory was initially developed to explain/predict the behavior of members of non-family small groups.

The origins of the social psychological study of coalition formation may be found in Caplow (1956), who explicitly credits Simmel (1902a, 1902b) as his inspiration. Caplow's original theory was an extended formulation of a general principle of Simmel's that in three-person groups, two of the actors would form a coalition to the exclusion of the third. Also, central to Caplow's theory was the idea that people prefer to dominate rather than to be dominated.

Subsequent researches have focused on the related issues of predicting which coalitions will form and how members of coalitions will distribute the gains from coalitions. Although research findings have often supported hypotheses concerning the importance of coalitions in determining the ultimate distribution of decision-making power, the effects of coalitions have been almost entirely ignored in discussions of power in families.

Historically, coalition theory considered resources as most influential in the development of coalitions (i.e., persons weak in resources form coalitions against the person strongest in resources). Recently, coalition theorists have identified other critical variables. For example, when two individuals belong to the same family or fraternity or are of the same sex, they are more likely to form coalitions than are individuals who are not. The effect of these variables may, in fact, be stronger than the effect of resources that individuals possess. How do we explain the strength of these non-resource variables? Could their strength be related to such issues as continuity and/or commitment?

Empirical tests of the effects of non-resource variables have led to mixed results. For example, Miller (1981) studied the relative effects of liking and resources on coalition formation in triads. "Liking" had a significant effect on the formation of coalitions, as long as there were no differences in resources among the triad members; but when there were differences in resources, the effect of liking was overwhelmed. Of course, in Miller's study, liking was experimentally manipulated. How might the results have been modified had the researcher studied family members who had previously identified their preferences or "liking" for certain other family members? One possible hypothesis is that liking would exert a stronger influence relative to resources. If liking is operationally defined as interpersonal attraction, how then might it be measured in families? And, furthermore, is liking a necessary but not sufficient condition for entering a coalition with another family member(s)? Conversely, are there certain conditions under which it is politically expedient to form a coalition with disliked family members?

Theory and research in coalition formation suggest that coalition outcomes may depend on the participants' prior bargaining experiences. However, the results of many coalition experiments may be restricted to naive bargainers and may not be generalized to experienced, sophisticated bargainers. Komorita and Kravitz (1981) investigated the effects of prior experience on coalition bargaining. The results of that study clearly demonstrated that familiarity and prior experience with coalition games markedly affect the payoff distributions of the coalition members. Paradoxically, prior experience had negligible effects on the frequencies of various possible coalitions.

There is little question as to whether the issue of prior experience is critical in examinations of family bargaining processes. Family members have a history of bargaining experience with each other which they bring with them to the experimental situation. The family also has expectations for future bargaining encounters which are shaped by previous and current bargaining experiences and which influence current bargaining behavior. For example, a family member might select a coalition partner(s) based on loyalties to certain family members derived from earlier successful coalition outcomes. On the other hand, a current coalition partner(s) might be selected because of an anticipated need in the future for which the person(s) might be particularly useful. Thus, coalitions in families are continuous and involve loyalty and commitment. At the same time, coalitions are dynamic and ad hoc as the balance of power shifts with internal and external influences impacting the family.

Coalition theory provides a useful conceptual tool for analyzing the ways in which power relationships are balanced in families through the

continual shifting of alliances between family members. Blood (1972) contended that coalitions develop in the family for the purpose of engaging in conflict, for solidarity, or to maximize rewards for participating members. Parental behavior may provoke sibling coalitions. Coalitions may develop across age and sex boundaries within the sibling subsystem or between a sibling and a parent. Coalitions in some families demand loyalty and rewards thus affecting a fair use of power in the family system. On the other hand, coalitions help family members adapt to the needs and frustrations of living together in the same system.

Coalitions can and do take many and varied forms within a given family. Galvin and Brommel (1982) outlined some of the typical coalitions that develop in families. Parents often form a coalition against the children thus preventing negotiation or discussion. Extended family and friends can become part of a power bloc. Unusual power coalitions may develop in single-parent families due to the presence of one adult. Blended families must contend with children playing one side of the family against the other. Also, some coalitions continue over time, while others develop only for reaching a decision on a given issue. Caplow (1968) found that sibling coalitions of same-sex siblings were most common and that age differences in sibling coalitions were small. He argued that coalitions between siblings may be fostered due to the large age range that exists in the family system.

Formal models of coalition formation have centered on two major issues. The first issue relates to coalition choice (i.e., how persons in competitive situations choose between alternative coalitions). The second issue deals with the mobilization of revolutionary coalitions in

cooperative group settings. It is the second of these two issues that seems to have the greatest implications for family group research.

Coalitions between siblings may be fostered due to the large variation in age that exists among family members. Parents are much older than their children and have more experience, resources, and power to dominate the group. It is not surprising to find that siblings coalesce to wield authority against other sibling coalitions as well as to counteract the impact of parents.

Caplow (1968) outlined the following possibilities for the formation of coalitions in the various family subsystems as follows:

> When the parental coalition is so solidary that no child is ever allowed to form a winning coalition with one parent against the other, we may expect to see strong coalitions among the children and even a condition of general solidarity uniting all the children of a large family. When one parent is clearly dominant, a conservative coalition is likely to form between the weaker parent and a child, which may lead in turn to the formation of sibling coalitions against the favorite child or to other very complicated patterns in a sizable family. When father and mother are nearly equal in power but do not have a strong parental coalition, sibling rivalry will be intense and bitter as the children compete among themselves for the shifting coalition opportunities offered by their parents. (p. 99)

Propositions such as these help to clarify potentiality for rivalry in the nature of the interaction that occurs in a family. Coalitions among and between family members can have both an integrative and a disruptive effect on family functioning. Although a given coalition may predominate on the basis of some balance of power and likeness, other coalitions will appear in response to other situations. This alternation of coalitions, according to Caplow, accounts for much of the vitality of family life and may contribute to the cohesiveness of the total family by preventing any single coalition from becoming too divisive. Obviously, it is also a

source of perennial instability and tension.

History of Family Interaction and Power Change

Galvin and Brommel (1982) contend that families are unique decision-making systems because the family has a history of having resolved or not having resolved past issues effectively. Past successes and failures can either enhance or impede current decision making. Decision making relates to power to the extent that one family member can predict and/or influence desired outcomes. The family differs from a non-family small group that comes together for a task by virtue of its history of continuous interaction and its composition of interdependent individuals. However, most of the early research studies on coalition formation limited these factors by working with non-family groups which had not had the opportunity to form sociometric subgroups.

Parent-child power relationships, as they apply to family decision-making and problem solving, have been studied by a number of researchers (Ferreira, 1963; Ferreira & Winter, 1965; Tallman, 1970). Tallman (1970) considered the flexibility of the power structure as a critical factor influencing the decision-making and problem-solving processes. He argued that the optimum structure would be one which becomes more open over the life cycle. Both Ferreira (1963) and later Ferreira and Winter (1965) found that the amount of agreement among family members on seemingly unimportant matters, prior to any interchange, was not only greater than chance, but capable of differentiating normal from abnormal families. The researchers speculated that this finding reflected the fact that family members have lived together for many years, as a group, under conditions of constant interchange of information about, and

accommodation to, their respective likes and dislikes.

The balance of power in families has been identified as a shifting phenomenon by several researchers. Edwards and Brauburger (1973) noted that this shift is particularly evident at the stage of adolescence. It is at this time that the power begins to shift in favor of the child, for during adolescence peer group rewards take on crucial significance and parental approval concomitantly declines in importance. The parent-child relationship can evolve at this point in one of two directions--that in which coercion is applied to bring about the desired compliance, or that in which expansion of the exchange system takes place. Hoffman (1963) contended that authoritarian strategies will prevail if the parent identifies with his/her high power role and his/her defensiveness against doubt is strong. However, there are likely to be more contested issues between parents and adolescents with a concomitant breaking down of the exchange system accompanied by conflict.

Coalition Change and Measurement

Bonacich, Grusky and Peyrot (1981) derived status maintenance theory as an attempt to adapt Caplow's model to the family system. Status maintenance theory is based on the assumption that family members act so as to maintain the intergity of the family and its distribution of legitimate authority. The central principle is that two mutually exclusive coalitions will not form because in conflict situations other family members will side with the family member of higher rank. This is different from Caplow's model, in which only the top-ranking group member is assumed to prefer a system-maintaining coalition; other group members are not reluctant to form winning revolutionary coalitions. The

assumption of a hierarchical power chain with F>M>O>Y still prevails with system maintenance theory.

If we view the family as an organization, then we can assume that the family has an interest in avoiding revolutionary coalitions because they subvert the organizational hierarchy. Parents are the leaders in this organizational hierarchy, and the siblings are the subordinates. Parents may offer inducements to some, but not all, subordinates in order to prevent a subordinate revolt. What are some of the common forms of inducements afforded target siblings by the parents? Inducements may take the form of special privileges (e.g., late curfew hours, larger allowances, or supervisory responsibilities over other siblings). But how do these inducements operate to prevent the development of coalitions?

Lawler, Youngs and Lesh (1978) empirically investigated cooptation and coalition mobilization in non-family small groups. Their data supported an interest-weakening interpretation and suggested that the response of the target was the major basis for cooptation success. The target expected more personal gain from the inducement and prevented the coalition by making anti-coalition proposals and persuading the nontarget to accept his view. Cooptation strategy proved most effective if the offer made by the leader conveyed a strong commitment to follow through on the inducement and if the inducement reflected the choice or discretion of the leader rather than situational constraints.

Lawler and Thompson (1979) examined the issue of subordinate response to a leader's cooptation strategy. Their results supported the notion, based on Thibaut and Kelley's (1959) treatment of usable power, (i.e., subordinates will be more inclined to mobilize a coalition when

they can control the coalition's effect on their own outcomes or the leader's outcomes). This utilitarian framework indicates that targets will be more inclined to mobilize an insurgent coalition the greater the expected utility of a coalition and the lower the expected utility of the inducement. The ability to deflect an inducement offer from a parent may be influenced by the sibling's resources such as age, sex and self-esteem. These so-called status variables may contribute to the sibling's belief that he or she can control the outcome of a decision-making process through a sibling coalition.

Predictions about Coalitions from the Literature

Sibling coalitions are more likely to form under conditions of perceived or real inequity from parents according to Caplow (1968). He argued that if the parental coalition is so strong that parent-child winning coalitions are never allowed, then strong sibling coalitions are likely to occur. Coalitions are more likely to form between siblings who are of more equal status and who will stand to benefit equally from the coalition. Therefore, sibling coalitions are more likely to form between same-sex siblings with small age differences. On the other hand, sibling coalitions are less likely to form in families when parents are equal in power but do not have a strong parental coalition. The latter situation results in intense rivalries for potential parent-child coalitions.

Caplow (1968) predicted that conflict is likely to occur in families in which the children's power increases (by virtue of their increasing age and maturity level) with no concomitant decrease in subordination of children's interests to those of their parents. The types of coalitions that emerge under such conditions may be influenced by family

environmental factors such as expressiveness (i.e., the extent to which family members are allowed and encouraged to act openly and to express their feelings directly), organizational structure (i.e., the degree of explicitness and clarity regarding family rules and responsibilities), and control (i.e., the extent to which the family is organized in a hierarchical manner and the rigidity of family rules and procedures).

Collins and Raven (1969) predicted that siblings have a greater likelihood of combining their resources against a common foe when the opportunity arises as a result of some factors inherent in the sibling subsystem itself. Siblings spend more time with each other (e.g., talking, sharing living arrangements and household chores), they share common interests, and they are of relatively equal status vis-a-vis their parents. These factors increase the likelihood of coalitions developing within the sibling subsystem.

For the present research, these predictions were stated in the form of hypotheses which were tested in a laboratory experiment. The description of the experiment, the data analysis, and the results are presented in the following chapters.

CHAPTER II

METHODOLOGY

This study used two theories of coalition formation that seemed particulary useful in generating hypotheses about coalitions in families. Since no valid or reliable measure of family coalitions had been developed, a major objective of this research was to include several measures to determine the internal validity of the investigation.

One theory used was Caplow's (1968) theory in which he developed a set of untested hypotheses about coalitions in families by modifying his earlier theory of coalitions in triads (Caplow, 1956) to make it applicable to coalitions in organizational hierarchies. The second theory was that of Bonacich, Grusky and Peyrot (1981). They developed a "status maintenance theory," which was intended to describe coalition patterns in highly legitimate power hierarchies (such as the family). To test hypotheses from these theories, this study investigated the types of coalitions and the conditions under which they develop in normal (nonclinical) family groups.

Hypotheses

The hypotheses to be tested in this study were based on two different coalition theories. Caplow's (1968) theory of coalitions in families and Bonaciach, Grusky and Peyrot's (1981) modification of Caplow's theory of coalitions in triads provided the theoretical underpinnings for this study.

Caplow distinquished between three types of two-against-one coalitions in triads. In the ABC (where A > B > C) triad the BC

coalition which succeeds in overcoming A, the most powerful, is a "revolutionary" coalition. A revolutionary coalition subverts the organizational power structure by reducing the most powerful to the least powerful. A "conservative" coalition is one that does not reorder power in the triad. The AB coalition is conservative because if it forms A is still the most powerful and C the least. "Improper" coalitions are those which are neither revolutionary nor conservative. If the improper AC coalition were to form, the position of B relative to C would be subverted. Caplow posited that organizations have an interest in avoiding revolutionary and improper coalitions because they subvert the organizational hierarchy. Superior members of an organization prefer conservative to improper coalitions as they preserve the integrity of the hierarchy from which they benefit.

Caplow (1968) assumed that the family consists of a hierarchical power chain composed of Father as most powerful followed by Mother, Older Child, and Younger Child. Caplow's stated prediction was, therefore, that the coalition structure in the family would be either Father-Mother vs. Older Child-Younger Child (two conservative coalitions) or Mother-Older Child vs. Father-Younger Child (a revolutionary and an improper coalition). Caplow's theory generated several testable hypotheses.

Hypothesis 1: In a family with a strong parental coalition, there is a greater likelihood that children will develop stronger sibling coalitions than parent-child coalitions.

Hypothesis 2: In a family with one clearly dominant parent, there is a greater likelihood that the weaker parent will develop a stronger coalition with the older child than with the

other parent or the younger child.

Hypothesis 3: In a family with two nearly equal parents who do not have a strong parental coalition, there is a greater likelihood that stronger parent-child coalitions than child-child coalitions will develop.

Hypothesis 4: Stronger sibling coalitions are more likely to form between same-sex siblings than between opposite-sex siblings.

Hypothesis 5: Stronger sibling coalitions are more likely to form between siblings who are closer as opposed to more distant in age.

Bonacich, Grusky and Peyrot (1981) developed "status maintenance theory" in an attempt to adapt Caplow's (1968) model to the family system. Drawing from Parsons and Bales (1955), Bonacich et al. noted that one distinctive feature of the family as a small social system is its division into two subsystems (i.e., parents and children). They argued that the maintenance of the division between these two statuses is a prerequisite for normal family functioning. Parental authority must be maintained in order to implement socialization of the children effectively and to discharge the responsibility for providing and maintaining resources. Status maintenance theory is based on the assumption that family members act so as to maintain the integrity of the family and its distribution of "legitimate" authority. The central principle is that two mutually exclusive coalitions will not form, because in any dispute other family members will side with the family member of higher rank. If the third family member is not of lower status

than both disputants the result will be a conservative coalition (e.g., father supports mother against a child). If the intervener is of lower status than both disputants, then an improper coalition will have formed (e.g., the younger child siding with the father against the older child). Revolutionary coalitions should not form. This is quite different from Caplow's (1968) model, in which only the top-ranking group member is assumed to have a preference for conservative coalitions while other group members are not reluctant to form winning revolutionary coalitions. Therefore, the following hypothesis was made.

Hypothesis 6: Family members will give stronger support to the higher status family member in the decision-making task.

Sample

This study was part of a larger project on normal (nonclinical) family interaction. However, this researcher participated in all parts of the sampling and data collection for the larger project. Respondents for the larger study were 62 two-parent, intact families with at least one child between five and twelve years of age, while this study examined a subset of 24 families. If the parents were divorced and remarried, at least one child had to be a result of the remarriage and fall within this age range. Since nonclinical family interaction was being investigated, no family members could be in psychiatric treatment at the time of the study.

A replicated systematic random sample was drawn from two elementary schools (grades K-6), one each from Wake and Durham counties in central North Carolina. The two schools were selected from the respective counties based on a size large enough to provide an adequate sampling

frame, and because they were the most representative of the overall demographic characteristics of the respective counties.

Student lists were acquired from the Director of Research from each county school system. These lists included all students attending school during the academic year 1984-1985. Since no information regarding marital status was included on the lists, there was no absolute certainty regarding the number of families meeting the eligibility criterion of two-parent family. In an attempt to rule out as many ineligibles as possible from the target population, students whose last names clearly did not match with the names of their designated parent/guardian were eliminated. Students identified as handicapped and requiring special education services were excluded from the lists as they did not meet the identified criterion for normal families. Students were excluded from the lists if their birth date reflected the fact that they were already 13 years old. All other students were considered eligible unless they failed to meet the age restrictions at the time of testing.

The replicated systematic random sample was drawn to assure that proportional representation across grade levels was included in the sample. To be assured that each family had an equal chance of being drawn in the sample, the separate lists were ordered alphabetically and blocked according to grade with families included who had only one child in a single grade. Families with two or more children in the schools were ordered only alphabetically and merged with the first lists.

Mailings describing the study were sent to potentially eligible families. Letters were sent to 235 families in the Durham County school and 510 families in the Wake County school. Follow-up telephone calls

were made to 362 families in Wake County resulting in 260 contacts. Telephone follow-up calls were made to 123 families in Durham County resulting in 103 contacts. All families contacted had the opportunity to participate, if they so desired. Sixty-two families ultimately participated in the larger study. Of these 62 families, 34 families were from Wake County and 28 families were from Durham County. A total of 98 families of the 260 contacted in Wake County were not eligible because of failure to meet the criteria for inclusion. In Durham County, 18 families of the 103 contacted were not eligible for inclusion. Therefore, the response rate for Wake County was 21% and 33% for Durham County. The other 185 families contacted were either unable or unwilling to participate. Characteristics of the 62 families seem to be representative of all eligible families.

The final sample size for this study was 24, which was a subset of families selected from the replicated systematic random sample. To have been included in this subset, a family must have had only two children, one child between five and twelve years of age and a second child between five and eighteen years of age. The decision to examine only families with two children was made to simplify the statistical analyses and for ease of comparison with other studies (in particular, Bonacich, Grusky & Peyrot, 1981). The sample size was originally intended to have been 30 families, but only 24 families met the eligibility requirements.

Characteristics of the sample for this study are listed in Table 1. The full sample of 62 families and their characteristics are reported in Appendix A. Examination of this information revealed that men and women in the full sample were approximately one year younger than those in the

Table 1

Sample Characteristics of Parents and Children

PARENTS	Men (N=24)			Women (N=24)		
Characteristic	MEAN	SD	Range	MEAN	SD	Range
Age	39.7	5.0	31-50	37.7	4.1	29-45
Education	16.0	.9	12-22	14.5	.8	12-18
Income (range in thousands)	32-34 (median)		13-50+	14-16 (median)		0-37
Years Married	18 (median)		11-22	18 (median)		11-22
Hours Worked Per Week	48.6	10.4	38-80	37.2	9.5	10-50
Race						
Black	25.0%			25.0%		
White	70.8%			70.8%		
Other	4.2%			4.2%		
County of Residence						
Durham	13%			13%		
Wake	11%			11%		
Times Married						
One	100%			100%		
Two	—			—		

CHILDREN	C3-Younger Child(N=24)			C4-Older Child(N=24)		
Characteristic	MEAN	SD	Range	MEAN	SD	Range
Age	8.2	2.4	5-12	12.0	2.9	6-17
Sex						
Male	37.5%			62.5%		
Female	62.5%			37.5%		

subset sample studied. The education and individual income levels indicated a predominantly middle-class sample. Both education and individual income levels were higher in the subset sample of 24 families and higher than the national average in the subset and the full sample. The respondents were predominantly white (74.2% full sample, 70.8% subset sample) and from urban counties. Most of the respondents were in their first marriages and the median number of years married was 16 in the full sample and 18 in the subset sample. The length of marriage varied in the subset (11 to 22 years) and in the full sample (9 to 23 years). All men and women were employed outside the home and on average worked full time. The number of children in all families varied from 1 to 5 in the larger sample and was constant at two in the subset sample. In this study, the younger child was typically female (62.5%) with an average age of 8.2 years. The older child was typically male (62.5%) with an average age of 12.0 years. Age and sex characteristics of the children in the total sample are reported in Appendix A.

Data Collection Procedures

Potentially eligible families, who were selected from the replicated systematic random sample from the two elementary school lists, were contacted by letter (see Appendix B) and then by telephone to discuss the nature of the study, to determine eligibility for participation in the study, and to invite them to participate in the study. Families who agreed to participate were scheduled for a two-hour research session at one of two sites. Wake County subjects were seen at Wake Teen Medical Services video lab and Durham County subjects were seen at North Carolina Memorial Hospital, Chapel Hill.

All telephone contacts were made by the researcher (male) and a research assistant (female graduate student). Four attempts were made to contact a family on different days and at different times before considering them unavailable. Also, families were queried about their reasons for not participating in the study, when that was their decision.

Each participating family received a letter (see Appendix C) subsequent to the telephone contact confirming the appointment time and location. In addition to the letter, several of the parental inventories were included with a request to fill them out and bring them to the session. This was done to reduce the time required to complete a testing protocol. All testing sessions were scheduled in the evenings and on weekends to accommodate family schedules. All family members were invited to participate. A reminder telephone contact was made 24 hours prior to the scheduled appointment time to confirm or to reschedule the appointment if necessary.

Two interviewers were present for each session, as independent testing of parents and children was required. One of the co-principal investigators of the larger study was present at each session. One graduate student research assistant was also present at each session. The combinations of sex of experimenters was not controlled in any systematic manner. Two graduate student research assistants were hired for each of the testing sites. Research assistants were trained on the use of the videotaping equipment and on the administration of all inventories and interview protocols. The research assistants were paid six dollars ($6.00) per hour for their time. The first family was seen on October 15, 1985 and the last family was seen on January 11, 1987.

Upon arrival at the research session, the purpose of the study was explained again to the whole family. Signed consent was obtained from all family members, excepting only those children who were unable to sign their names (see Appendix D). A small sum of money ($10.00 per family) was given to families in exchange for their time. A full description of the step-by-step plan of events for the testing session was provided to each family. An introduction to the videotaping equipment was made to reduce anxieties related to being filmed. Confidentiality of all test results and the intended use of the results were discussed with the family.

The family was then videotaped while engaged in the 30-minute experiment. The first 20 minutes involved play tasks. The play interaction consisted of one 10-minute segment of play, whereby the family was directed to build anything they chose with Lego blocks. The second 10-minute segment of play focused around a competitive board game (i.e., Chinese Checkers). The video camera was turned off after the second 10-minute segment in order that the families could be instructed about the decision-making task. These first two 10-minute segments were germane to the focus of the larger project on normal family interactions, but they were only tangentially related to the focus of the present study.

Experimental Decision-making Task

The final 10-minute segment of videotaped family interaction entailed a structured decision-making task. The decision-making task was designed by the researcher to create a conflict situation for the family. A pilot investigation with three families was conducted to assure that

the task did in fact create a conflict situation and did in fact stimulate the formation of coalitions between and among family members. The following explanation and instructions were provided to each family by the experimenter:

> We would like to understand more about the processes by which families make decisions regarding important issues in their daily lives. In order for us to learn more about these processes, we would like for you to play a decision-making game for the next 10 minutes. Pretend, for a moment, that I [experimenter] had $100.00 which I could give to you and your family to do with as you please. The only thing is that all of you would have to decide together how your family would use the $100.00. You and your family could do anything you wanted to with the money. You could use it for fun activities or you could use it to pay for something your family wants or needs. Your family could choose to use it together or choose to divide it. For the next 10 minutes, please discuss and make a decision about how you would use the $100.00. I will let you know when 5 minutes, 8 minutes, and 9 minutes have gone by. I will stop you at the end of the 10 minutes. We will be videotaping you as you play this game. Before you begin, please take a few minutes to answer the three questions on the sheet of paper I am handing to you now (see Appendix E). After the game, I will give you another sheet of paper on which there are five questions related to your experiences during the game (see Appendix F). Please take a few minutes to answer these five questions carefully. Are there any questions? You may begin now.

Pre-experimental Questionnaire

The pre-experimental decision-making game questionnaire, referred to in the directions given to the families (see Appendix E), was administered prior to the videotaping of the 10-minute decision-making game. This questionnaire included three questions and was completed by each family member independently. One question was designed to have the individual consider his/her personal preference for how the family would use the $100.00 in order for each person to be clear about expectations regarding outcome before the videotaping began. A second question was designed to have the individual think about potential coalition partners in the family in order to measure each member's notion of typical teams. The third question was designed to obtain information about family

members' perceptions of whom they believed would be most powerful in the family decision-making game. All questionnaires were collected and the videotaping of the decision-making game was initiated.

Post-experimental Questionnaire

At the end of 10 minutes, the families were instructed to stop the game whether a decision had been reached or not. The video camera was turned off at this point. All family members then completed the post-experimental decision-making game questionnaire referred to in the directions given to the families (see Appendix F). The questionnaire included five questions and was completed by each family member independently. One question was designed to have family members identify the coalitions that they observed during the decision-making game. Another question asked if the coalitions observed during the decision-making game were the typical coalitions that occur in their family decisioning. A third question asked if characteristic family behaviors emerged in the decision-making game. Two questions were designed to identify family members' attitudes about their levels of satisfaction and feelings of fairness about the outcome of the decision-making game.

Psychological Inventories

After all family members completed the post-experimental decision-making game questionnaire, the family was given a short break. Then the parents and children were separated for the next phase of the session. They went into different rooms accompanied by one of the interviewers.

All children eight years old and older completed the Children's Report of Parental Behavior Inventory (CRPBI) Revised Version by Schludermann and Schludermann (1970) on both parents. The Self

Observation Scales (SOS), a measure of self-esteem developed by Stenner and Katzenmeyer (1979), were completed by children 5 years old and older. Either the Family Environment Scale (FES) by Moos, Insel and Humphrey (1974), designed for children 10 years old and older, or The Children's Version of the Family Environment Schale (CVFES) by Pino, Simons and Slawinowski (1984), designed for children 6 to 10 years old, was completed by all children. Permission to request information from each child's school was secured from the parents.

Parents completed the Parent Report of Child Behavior to the Parent (Schaefer & Edgerton, 1975), the Brief Symptom Inventory (BSI) by Derogatis (1975), and the Eyberg Child Behavior Inventory (ECBI) by Eyberg and Ross (1978) on all children. They also completed the Family Environment Schale (FES) by Moos, Insel and Humphrey (1974). In a brief semistructured interview with the parents, demographic information and information about family decision-making patterns was obtained (see Appendix G). The Dyadic Adjustment Scale (Spanier, 1976) and the Life Experiences Survey (Sarason, Johnson & Siegel, 1978) were completed by both parents. All standardized instruments were used only in the larger study.

Measures of Coalitions

Coalition Definition

In this study, the dependent variable was the coalition. A coalition was defined as existing when family members jointly used their resources to control a decision. Coalitions are not synonymous with affective cliques of mutual attraction nor are they indicated by the absence of disputes among family members. For the purpose of this study,

coalitions were measured as a proportion (i.e., the frequency of supportive statements made by two family members to each other compared to the total number of supportive statments made by all family members during the experimental decision-making task) (Bonacich, Grusky & Peyrot, 1981). A supportive statement or action must be manifested by one family member toward the position of another family member in a conflictual family situation in order for an observer to identify the presence of a coalition.

An example from the transcript of a test family session using the researcher designed experimental task will help clarify the definition of a coalition. In the Jones family, Mother suggested that the money be used to go to an amusement park and for having dinner. In response to Mother's suggestion, Father said "Yeah, we could eat and buy the food at the amusement park." Support was also provided to Mother by Older Child who said, "And then we can ride the roller coaster three times in the front seat." At this point in the discussion, two coalitions can be identified. Mother and Father have engaged in one coalition and Mother and Older Child have formed a coalition around the issue of how a certain amount of money ($100.00) will be used by the family. The Younger Child in this family then proposed an alternative option, "Let's each get $5.00 and the remaining $5.00 could be spent on sugar-free bubble gum." There was no support by other family members for Younger Child's suggestion, thus keeping intact the Father-->Mother and the Older Child-->Mother coalitions for the moment.

Types of Coalitions

The following symbols were used in order to simplify the presentation of family data:

F = Father

M = Mother

C4 = Older Child

C3 = Younger Child

There are six possible coalition types in a family of four. The coalition types were F<->M, F<->C3, F<->C4, M<->C3, M<->C4, and C3<->C4.

1. Parent-parent coalitions (PAR) were composed of the proportion of the total number of supportive statements made by the family which were made by F-->M + M-->F.
2. Parent-child coalitions (PC) were computed by adding the number of F-->C4 + C4-->F + F-->C3 + C3-->F + M-->C4 + C4-->M + M-->C3 + C3->M supportive statements and dividing that sum by the total number of supportive statements made by the family.
3. Sibling Coalitions or child-child coalitions (SIB) were composed of the proportion of the total number of supportive statements made by the family which were made by C4-->C3 + C3-->C4.

Coding Method

The coding method involved several steps that were followed in sequence by the researcher (see Appendix H for Coding Manual and Rating Form). The researcher viewed the total 10-minute videotape segment to become familiar with the family. During this first viewing the researcher looked for the presentation of ideas by family members. The researcher recorded each family member's idea for the decision-making

task on the rating form. If a family member changed or modified his/her idea during the 10-minute segment, the researcher recorded each idea he/she presented. The family's final decision and the originator of the idea were recorded on the rating form.

The researcher viewed the entire 10-minute videotape segment through a second time. This time the researcher recorded the supportive acts observed during the 10-minute decision-making task by placing a slash mark in the appropriate box on the rating form. Instructions and descriptors of supportive acts were included in the manual.

The researcher was also asked to make a global assessment of the decision-making mode employed by the family in the decision-making task. This was a forced-choice response and therefore the researcher selected one category from those provided on the rating form: group consensus, majority rule, parents' decision, children's decision, individual family member decision or other.

It was originally intended that the videotapes would be rated by two independent raters. Lack of availability of suitable raters and the absence of sufficient financial resources to support this plan resulted in the utilization of one external rater (hereafter called Rater 1). The rating was done by a male medical student. The student was provided didactic information and discrimination training using four videotapes of families tested but not eligible for inclusion in this study. High interrater agreement was reached between the trainer and the trainee on the four videotapes. Following the training, the student rater made independent ratings of all 24 family videotapes.

A randomization schedule was employed first to determine the order in which the medical student (Rater 1) would view the tapes. Families were numbered consecutively and they were taped sequentially in time according to increasing family numbers. To ensure a viewing order that would draw from the time range evenly, the time range was broken into sections with the order of numbers randomized within each section. A further randomization occurred to determine the order of viewing of tapes from the various sections. A randomization procedure was also employed to select 15 of the 24 tapes for viewing by the researcher (hereafter called Rater 2) for reliability testing. A similar procedure to the one described above was followed to determine the order in which the researcher would view the tapes.

Each family had 12 member pairs for which an estimate of the number of supportive acts was made by the two independent raters. The average differences in ratings done by Rater 1 and Rater 2 and summary statistics are reported in Table 2. The raters agreed exactly on the number of supportive acts in 65.6% + or - 4.9 of the 12 member pairs on average. Furthermore, agreement by one point was achieved in 90.0% + or - 2.3 of the member pairs and agreement by two points was achieved in 95.0% + or - 1.8 of the member pairs on average. A one-point discrepancy in a rating can be considered good agreement clinically because of the highly idiosyncratic nature of the behavior being observed.

The discrepancy observed in the ratings of the 12 member pairs was not significantly different from zero on average (all p-values were greater than .13). This indicates a lack of rater bias in the sense that one rater did not consistently count more supportive acts than the other

Table 2

Interrater Reliability: Average Differences in Ratings of Supportive Acts by Rater 1 and Rater 2

Family Member Pair	M	SE	Paired t-test	p-value	Wilcoxon Signed Rank	p-value	Median	Min	Max
FM	.80	.50	1.60	.13	12.00	.10	0	- 1	7
FC4	-.27	.23	-1.17	.26	-3.00	.35	0	- 3	1
FC3	.93	.94	.99	.34	1.50	.59	0	- 1	14
MF	-.13	.32	- .41	.69	- .50	1.00	0	- 4	2
MC4	-.13	.13	-1.00	.33	-2.50	.42	0	- 1	1
MC3	-.20	.17	-1.15	.27	-3.00	.35	0	- 2	1
C4F	-.07	.46	- .14	.89	- .50	1.00	0	- 5	4
C4M	-.13	.46	- .29	.77	-1.00	.92	0	- 4	4
C4C3	.27	.21	1.29	.22	3.50	.27	0	- 1	2
C3F	-.20	.20	-1.00	.33	-4.50	.37	0	- 2	1
C3M	-.13	.22	- .62	.55	-3.50	.59	0	- 2	1
C3C4	.20	.20	1.00	.33	4.50	.37	0	- 1	2

rater. For 11 out of the 12 member pairs, raters consistently reported high scores and low scores. The minimum Spearman rank correlation coefficient was greater than .58 (p-value < = .02). The 12th pair had a correlation coefficient of .38 (p-value < = .17).

The limitation of this method of reliability assessment is that one has primarily determined the success of the training. However, this method does provide some indication of the extent to which the instrument and training have set objective criteria for another experimenter to follow. The next level of reliability assessment should involve ratings of the videotapes by two independent raters (excluding the trainer) and should provide more meaningful data on the reliability of the instrument.

Derived Variables

The original conceptual definitions of these five variables, (a) equal strength coalitions, (b) strong/weak coalitions, (c) clearly dominant parent, (d) nearly equal parents, and (e) age differences in sibling pairs, had to be changed in order to deal with them statistically. Table 3 shows the correspondence of the original conceptual definitions of the variables investigated and the final derived operational definitions.

Coalitions of equal strength were originally intended to have been measured by the presence of a situation in which each coalition type (e.g., F—>M + M—>F) represented 1/6 or 16.6% of the total number of supportive statements made by a family. However, since the analyses were done at the level of parent-parent, parent-child, and sibling coalitions, equal strength of coalitions was indicated simply by 1/3 or 33.3% of the total computed for each of the three categories. Originally it was

Table 3

Correspondence of Original Operational Definitions with Derived Operational Definitions of Variables

Original Operational Definitions	Derived Operational Definitions
1. Equal strength coalitions Six coalition types each representing 1/6 or 16.6% of the total number of supportive statements made by a family: F<->M = F<->C4 = F<->C3 = M<->C4 = M<->C3 = C4<->C3	1. Equal Strength coalitions Three coalition categories, parental, sibling, and parent-child each representing 1/3 or 33.3% of the total number of supportive statements made by a family: F<->M = F<->C3 + F<->C4 + M<->C3 + M<->C4 = C3<->C4
2. Strong/weak coalitions Strong coalition = coalition strength (proportion) greater than one standard deviation above the mean number of supportive statements made by all family members Weak coalition = coalition strength (proportion) greater than one standard deviation below the mean number of supportive statements made by all family members	2. Strong/weak coalitions Comparisons of the log transformations of each coalition category: LSIB = LOG (C4C3 + C3C4 + .5); LPAR = LOG (FM + MF + .5); LPC = LOG (Total Support-FM-MF-C4C3-C3C4 + .5)
3. Clearly dominant parent When one parent was selected as likely to be most powerful in the decision-making game by three of the four family members, the parent was clearly dominant.	3. Clearly dominant parent A clarity of dominance indicator factor, DIND, was derived based on who supported whom to a greater extent in the decision-making game: MDIND = (FM-MF) / Total Supportive Statements, when FM> = MF (Mother Dominant) FDIND = (MF-FM) / Total Supportive Statements, when FM< = MF (Father Dominant)

(table continues)

Original Operational Definitions	Derived Operational Definitions
	3. Clearly dominant parent IND1 was derived to represent the ratio between coalitions engaged in by the weaker parent with the older child vs. coalitions engaged in with the dominant parent. IND2 was derived to represent the ratio between coalitions engaged in by the weaker parent with the older child vs. coalitions engaged in with the younger child.
4. Nearly equal parents When both parents were employed outside the home, they were considered nearly equal in power in family decision-making.	4. Nearly equal parents A parental power status factor, DOM, was derived based on the relative frequencies of the support provided by the parents to each other in the decision-making game: DOM = |(FM-MF) / (FM + MF + 1)| . A low DOM score indicated nearly equal status parents. INDX was a factor derived to represent the ratio between parent-child coalitions and sibling coalitions.
5. Age differences in the sibling pairs Close in age was indicated when siblings were less than two years apart in age. Distant in age was indicated when siblings were two years or more apart in age.	5. Age differences in the sibling pairs A sibling age difference factor, DFAG, was derived and computed as: DFAG = C4AGE-C3AGE. The degree of distance in age between the older and younger child was determined by a high or low DFAG score.

intended that a strong coalition would exist any time the coalition strength (i.e., proportion) was greater than one standard deviation above the mean number of supportive statements made by all families. Likewise, a weak coalition would exist anytime the coalition strength was greater than one standard deviation below the mean number of supportive statements made by all family members. Using this definition created a situation in which too few families met the criteria to allow for a meaningful statistical analysis.

Looking at the means revealed that the standard deviations were related to the means over the four primary variables under consideration (i.e., F->M, M->F, C3->C4, C4->C3). The relationship was fairly steady--larger means went with larger standard deviations. This suggested taking a log transform (see Aitchison & Brown, 1957). It may often be more convincing to have side by side the frequency distribution that has arisen in practice with one constructed by some artificial means. This is particularly the case with very skewed distributions, since even small samples may contain one or two high values which might otherwise be suspected. Therefore, three variables were constructed that allowed for more meaningful comparisons of coalition strength and weakness. The variable LSIB is the log transformation of the variable SIB (the proportion of supportive statments in the family made by C3->C4 + C4->C3) and it was computed as LOG (C4C3 + C3C4 + .5). The variable LPAR is the log transformation of the variable PAR (the proportion of supportive statements in the family made by M->F + F->M) and it was computed as LOG (FM + MF + .5). The variable LPC is the log transformation of the variable PC (proportion of supportive statments in the family made by

M->C3 + C3->M + M->C4 + C4->M + F->C3 + C3->F + F->C4 + C4->F) and it was computed as LOG (Total Supportive Statements - FM - MF - C4C3 - C3C4 + .5). The negative values in the computation of LPC are present, since LPC is considered the residual of LPAR and LSIB. The addition of 0.5 in each equation is done to assure that all values are greater than zero.

A clearly dominant parent was intended to have been measured by using the family members' responses on the pre-experimental decision-making game questionnaire (see Appendix E). If one parent was selected by at least three of the four family members on question 3, which asked "Which one person do you think is most likely to get his or her way or to have the most influence (power) in the decision about how to use the $100.00?", then that parent would have been identified as the clearly dominant parent. This method of determining dominance resulted in too few families for a meaningful statistical analysis.

Alternatively, another method of determining parental dominance was derived. A clarity of dominance indicator factor (DIND) was derived and computed based on the data, in that parental dominance was defined by who supported whom to a greater extent in the decision-making task. Thus, the dominance indicator factor was derived as follows:

$$\text{MDIND} = \frac{\text{FM} - \text{MF}}{\text{Total Supportive Statements}} \quad \text{when FM} > = \text{MF (Mother Dominant)}$$

$$\text{FDIND} = \frac{\text{MF} - \text{FM}}{\text{Total Supportive Statements}} \quad \text{when FM} < = \text{MF (Father Dominant)}$$

Originally it was intended that when both parents were employed outside the home, they would be considered nearly equal parents with respect to their power in family decision-making situations. However, this proved to be an unsatisfactory measure as all parents in this study

were employed outside the home.

An alternative approach to determining nearly equal parents was derived from the data. A status factor (DOM) was derived as follows:

$$DOM = |(FM-MF)/(FM + MF + 1)|$$

Thus, a low DOM score would indicate nearly equal status between parents.

When considering age differences between siblings in a family, it was originally intended that those siblings who were less than two years apart in age would be considered close in age. Those siblings who were two years and greater apart in age would be considered distant in age. This approach resulted in too few cases for a meaningful statistical analysis.

Alternatively, a factor was derived from the data to indicate age differences between siblings. The factor DFAG was derived as follows:

$$DFAG = C4AGE - C3AGE$$

Thus, the degree of distance in age between the the older and younger child could be determined by a high or low DFAG score.

Unless otherwise qualified, the status of family members was identified by the assumption of a hierarchical power chain with F>M>C4>C3.

Data Analysis Procedures

It was originally intended that the six hypotheses would be tested using six different one-way analyses of variance. Glass and Hopkins (1984) noted that when using ANOVA, the assumption of independence of observations is necessary for accurate probability statements. Independence of observations requires that observations within groups not be influenced by each other. Unfortunately, the design of the

experimental task and the rating system created a situation in which the observations (i.e., frequencies of supportive acts between family members) were influenced by each other. If the observations were analyzed as if the data were independent, the true probability of a type-I error would be apt to be larger than the nominal alpha. Nonindependence of observations thus increases the probability that treatment effects will be claimed for ineffective treatments. Thus, other more appropriate statistical analyses were employed.

Hypothesis 1

Hypothesis 1 stated that "in a family with a strong parental coalition, there is a greater likelihood that children will develop stronger sibling coalitions than parent-child coalitions." To test this coalition-counters-coalition effect, the derived variables discussed above were used (refer to Table 3): LSIB (Log of C3<->C4), LPAR (Log of M<->F), and LPC (Log of M<->C3 + M<->C4 + F<->C3 + F<->C4). LSIB and LPAR are within-coalition indices. LPC is a cross-coalition index. These indices were correlated with each other (see Table 4). Notice that the only negative correlation was between the two indices of coalition formation, LSIB (between siblings) and LPAR (between parents).

Proctor (1987) suggested a method for addressing the issue of interdependencies among variables. He recommended doing causal path analysis using his method designed from the outset for fitting to correlations (cf. Joreskog & Sorbom's LISREL, 1978 designed to fit to sample covariances). The path analysis consists of (a) specifying a causal path diagram, (b) calculating the estimates of the path coefficients (which are then used to calculate theoretical correlations)

Table 4

Pearson Correlation Coefficients Between Within-Coalition and Cross-Coalition Indices (N=24)

	LSIB (1)	LPC (2)	LPAR (3)
LSIB (1)	1.00	r_{12} = .33	r_{13} = - .12
LPC (2)		1.00	r_{23} = .19
LPAR (3)			1.00

LSIB = Log transformation of SIB (strength of sibling coalitions)

LPC = Log transformation of PC (strength of parent-child coalitions)

LPAR = Log transformation of PAR (strength of parent-parent coalitions)

and (c) calculating a measure of fit between the theoretical and the observed correlations.

Therefore, to test the significance of the difference between r_{13} and $(r_{23} + r_{12}) / 2$ namely $\hat{\phi} = (r_{23} + r_{12}) / 2 - r_{13}$, the null hypothesis was set up: $H_0 : \phi = .5\,\rho_{23} + .5\,\rho_{12} - \rho_{13} = 0$, and it was tested against Hypothesis 1. This means that the significance of the difference between r_{13} (the correlation between LSIB and LPAR) and the average of r_{23} (the correlation between LPC and LPAR) and r_{12} (the correlation between LSIB and LPC) is being tested. The coalition-counters-coalition effect is being tested here in that the presence of a strong parental coalition counters the formation of a strong parent-child coalition and increases the likelihood of a strong sibling coalition forming.

Hypothesis 2

Hypothesis 2 stated that "in a family with one clearly dominant parent, there is a greater likelihood that the weaker parent will develop a stronger coalition with the older child than with the other parent or the younger child." This hypothesis was tested by using the clarity of dominance indicator (DIND) (refer to Table 3), the derivation and computation of which was discussed above. Two other factors were computed to determine the ratio of the strengths of coalitions engaged in by the weaker parent.

The first factor was dominance indicator 1 (IND1). In the situation FM<MF (i.e., father supported mother less than mother supported father) a father dominant situation was apparent. Thus, the following ratio was computed (MC4 + C4M) / (MF + FM), which compared the weaker parent's

(mother's) coalition strength with the older child (C4) to her coalition strength with the dominant parent (father). If FM = MF a value of 0 was assigned on the IND1 factor, as this represented a situation of equal status parents. If FM>MF then a mother dominant situation was present. In this situation, the ratio of coalition strength of coalitions entered into by the weaker parent (father) with the older child (C4) and with the dominant parent was computed as (FC4 + C4F) / (MF + FM).

The second factor, IND2, examined the ratio of coaliton strengths of coalitions entered into by the weaker parent with the older vs. the younger child. If FM<MF, then a father dominant situation was present. Therefore, IND2 represented the ratio of the coalition strength of the weaker parent's (mother's) coalitions with the older vs. the younger child: (MC4 + C4M) / (MC3 + C3M). If FM = MF, a score of 0 was assigned for IND2 representing equal status parents. If FM>MF, then a mother dominant situation was present. IND2 then represented the weaker parent's (father's) relative coalition strengths with older vs. younger child: (FC4 + C4F) / (FC3 + C3F). Pearson correlation coefficients were computed between DIND and IND1 and between DIND and IND2 to test Hypothesis 2.

Hypothesis 3

Hypothesis 3 stated that "in a family with two nearly equal parents who do not have a strong parental coalition, there is a greater likelihood that stronger parent-child coalitions than child-child coalitions will develop." To test this hypothesis, the DOM (refer to Table 3) factor was utilized. Recall that a low DOM score indicated nearly equal status parents. Also recall that PAR has been designated to

represent parental coalitions (i.e., (FM + MF) / Total Number of Supportive Statements Made by a Family). The ratio of coaliton strengths between parent-child and child-child coalitions was represented by INDX: INDX = (FC3 + C3F + FC4 + C4F + MC3 + C3M + MC4 + C4M) / (C3C4 + C4C3). Pearson correlation coefficients were computed for the three factors (i.e., DOM, PAR and INDX) and no statistically significant correlations were found between the factors. Since there was not a strong intercorrelation among the variables, a multiple regression analysis was in order. Two approaches to testing Hypothesis 3 were employed. The first regression was computed using SAS as: MODEL INDX = DOM PAR (i.e., INDX was the criterion variable with DOM and PAR as predictors). A second regression model was computed which took into account the interaction between DOM and PAR: MODEL INDX = DOM PAR DOM*PAR.

Hypothesis 4

Hypothesis 4 stated that "strong sibling coalitions are more likely to form between same-sex siblings than between opposite-sex siblings." To test this hypothesis, a sibling sex factor was computed (i.e., SS). If the sex of a sibling pair was the same, then SS = 1. If the sex of a sibling pair was opposite, then SS = 0. Recall that sibling coalitions are represented by SIB (i.e., SIB = (C3C4 + C4C3) / Total Number of Supportive Statements Made by a Family). To test Hypothesis 4, a *t*-test was computed looking at SIB as the dependent variable and using the SS factor as the two groups being compared. To test this hypothesis the null hypothesis was set $H_0: \mu_1 = \mu_2$ and was tested against $H_1: \mu_1 < \mu_2$.

Hypothesis 5

Hypothesis 5 stated that "stronger sibling coalitions are more likely to form between siblings who are closer as opposed to more distant in age." Recall that DFAG (refer to Table 3) was computed to represent the difference in age between the older child (C4) and the younger child (C3) in each family. Using SIB as representative of the strength of the sibling coalition, a Pearson correlation coefficient was computed between DFAG and SIB, as well as computing a regression analysis with SIB as the criterion variable and DFAG as the predictor variable.

Hypothesis 6

Hypothesis 6 stated that "family members will give stronger support to the higher status family member in the decision-making task." This hypothesis was based on the theoretical assumption that F>M>C4>C3. To test this hypothesis, four variables were computed which represented the support received by each family member. The four variables and their computations are presented below:

FS = MF + C3F + C4F

MS = FM + C3M + C4M

C4S = FC4 + MC4 + C3C4

C3S = FC3 + MC3 + C4C3

Means were computed for each of these four variables and a test of difference between correlated means was computed using a one-tailed *t*-test.

Validity and Reliability of Measurements

One methodological problem of previous investigations of coalitions in families is the way in which coalitions have been measured. No study

was identified which reported any determination of construct validity. The present study adapted the operational definition of a coalition derived by Bonacich, Grusky and Peyrot (1981) to the purposes of this investigation. As stated above, coalitions were measured as a proportion (i.e., the frequency of supportive statements made by two family members to each other compared to the total number of supportive statements made by all family members during the experimental decision-making task). This measure of coalitions had not been subjected to any test of construct validity.

Since one major focus of this study was to develop a reliable and valid measure of family coalitions, a rather extensive validation analysis was performed. Construct validity of putative causes and effects is what researchers are concerned with when they worry about confounding. Since this validity is crucial in experiments in which causal propositions are being tested, the results of the validation analysis will be presented with the results of the tests of hypotheses in the next chapter.

CHAPTER III

RESULTS

There were two purposes in this research: (a) to test two theories of coalition formation in families, and (b) to test the reliability and validity of an instrument designed for measuring family coalitions. The results from the data analyses required for testing the six hypothesis are presented in this chapter. The first five hypotheses examined Caplow's (1968) power coalition formation theory. Only one hypothesis was supported, therefore, the theory had limited predictive ability in this sample of families. The sixth hypothesis examined Bonacich, Grusky, and Peyrot's (1981) status maintenance theory based on a strong parental coalition. Only partial support was found for this hypothesis. The validity of the primary construct, family coalition, was tested through correlational analyses which resulted in a trend toward convergence of the various measures employed.

Caplow's Theory of Coalitions in Families

Caplow's (1968) theory of coalitions in families was based on his earlier theory (Caplow, 1956) concerning coalitions in organizations. Assuming that the family consists of a hierarchical power chain composed of F>M>C4>C3, Caplow's theory implies that certain coalitions rather than others will form. His stated prediction was that the coalition structure will be either the father and the mother versus the two children or the mother and the older child versus the father and the younger child.

Hypothesis 1

Hypothesis 1 was a test of the coalition-counters-coalition effect. This means that when a strong parental coalition is present in a family, the likelihood of formation of a strong sibling coalition is increased while the formation of a strong parent-child coalition is countered by the presence of the strong parental coalition. Causal path analysis was selected as the method of choice because of the interdependencies among variables. The null hypothesis was set to represent the relationship of the variables in the population: $H_0 : \phi = .5\rho_{23} + .5\rho_{12} - \rho_{13} = 0$. This means that the difference between r_{13} [the correlation between sibling coalition strength (LSIB) and parent coalition strength (LPAR)] and the average of r_{23} [the correlation between parent-child coalition strength (LPC) and LPAR] and r_{12} (the correlation between LPC and LSIB) is statistically equal to zero. The alternative hypothesis was represented by the following equation using the observed correlations from the sample: $\hat{\phi} = (r_{23} + r_{12})/2 - r_{13} = .3769$. Using Pearson and Filon's (1898) algorithm, the covariances of the correlations between LSIB, LPAR, and LPC were computed (see Table 5) and were used to find the standard error of $\hat{\phi}$ which was .1994. This gives a test statistic of $\underline{t} = \frac{\hat{\phi}}{SE(\hat{\phi})} = 1.8895$. Reporting the one-tailed probability from the Table of Standard Unit Normal Distribution, we find $\underline{t} = 1.8895$ to be significant at the 3% level.

Therefore, the null hypothesis was rejected and support was found for the alternative hypothesis. The data supported the predicted relationship of the coalition-counters-coalition effect. In this sample, a family with a strong parental coalition tended to have a stronger

Table 5

Covariances of the Correlations Between Within-Coalition and Cross-Coalition Indices (N=24)

	LSIB	LPC	LPAR
LSIB	.0378	.0086	-.0060
LPC		.0463	.0154
LPAR			.0443

LSIB = Log transformation of SIB (strength of sibling coalitions)

LPC = Log transformation of PC (strength of parent-child coalitions)

LPAR = Log transformation of PAR (strength of parent-parent coalitions)

sibling coalition than parent-child coalition.

Hypothesis 2

Hypothesis 2 predicted the type of coalition most likely entered into by the weaker parent in a family with a clearly dominant parent. The ratio between the coalitions engaged in by the weaker parent with the older child vs. coalitions engaged in with the dominant parent (IND1) should be large in the presence of a clearly dominant parent [high score on clarity of dominance factor (DIND)]. The ratio between the coalitions engaged in by the weaker parent with the older child vs. coalitions engaged in with the younger child (IND2) should also be large in the presence of a high score on DIND.

Pearson correlation coefficients were calculated for DIND and IND1 and for DIND and IND2. The correlation coefficient for DIND and IND1 was $-.15$ (p-value $<= .48$) and for DIND and IND2 it was .01 (p-value $<=$ .98). These correlations were so low they were considered unimportant. In addition they were statistically nonsignificant.

Therefore, the null hypothesis was accepted and the alternative hypothesis was rejected. The data failed to provide evidence to support any particular pattern of coalition formation between the weaker parent and the children in families with one clearly dominant parent.

Hypothesis 3

The predicted relationship between the variables in Hypothesis 3 was that families receiving a low score on the factor representing nearly equal status between the parents (DOM) and a low score on the factor representing strength of parental coalition (PAR) would receive a high score on the factor representing the ratio between parent-child

coalitions and sibling coalitions (INDX). Thus the expected correlation between INDX and DOM and the correlation between INDX and PAR were to have been negative. Pearson correlation coefficients were computed and revealed no statistically significant relationship between the variables (see Table 6).

Two multiple regression equations were computed in an effort to discover more detailed information regarding the relationship between these variables. The first regression equation identified INDX (the ratio of coalition strengths between parent-child and child-child coalitions) as the criterion variable with DOM (parental power status factor) and PAR parental coalition strength) as the predictor variables. The results revealed an $\underline{R}^2$ of .09 , $\underline{F}$ = .48, and $\underline{p}$ < .63. Therefore, we conclude that the model does not fit the data.

One additional regression analysis was computed which took into consideration the interaction between DOM and PAR. Thus, INDX was the criterion variable and DOM, PAR and the DOM-PAR interaction were the predictor variables. The results provided only a slight gain over the first equation: $\underline{R}^2$ = .15, $\underline{F}$ = .52, and $\underline{p}$ < .68. The second model did not fit the data either.

Therefore, the null hypothesis was accepted and the alternative hypothesis was rejected. There was no evidence to support the notion that parent-child coalitions tend to be stronger than child-child coalitions in families with two nearly equal parents who do not have a strong parental coalition.

Table 6

Pearson Correlation Coefficients Between INDX and DOM and Between INDX and PAR (N=13)

	DOM	PAR
INDX	.25	.04

DOM = Parental power status factor

PAR = Strength of parent-parent coalitions

INDX = Ratio of coalition strengths between parent-child and child-child coalitions

Hypothesis 4

Hypothesis 4 predicted the relationship between the sex of the sibling pair in a family and the strength of the sibling coalition (SIB). Using SIB as the dependent variable, it was predicted that the mean of Group 1 (i.e., opposite-sex sibling pairs) would be smaller than the mean of Group 2 (i.e., same-sex sibling pairs). A t-test was computed on these two sample means and the results are reported in Table 7. Because of the directionality aspect of the alternative hypothesis, a one-tailed test of significance was used. This results in a change in the p-value to $p < .25$.

Therefore, the null hypothesis was accepted and the alternative hypothesis was rejected. Even though same-sex sibling coalition strength was slightly larger than opposite-sex sibling coalition strength, this difference failed to meet the level of statistical significance.

Hypothesis 5

The relationship between age differences in the sibling pairs and the strength of the sibling coalitions in families was examined in the testing of Hypothesis 5. DFAG was the variable computed to represent age differences between the sibling pairs. A low score on DFAG represented closeness in age between the sibling pairs, while a high score on DFAG represented a sibling pair who were distant in age. The predicted relationship between DFAG and SIB (i.e., the measure of the strength of the sibling coalition) was negative. In other words, when the DFAG score was low, the strength of the sibling coalition would be strong. A Pearson correlation coefficient was computed between the variables DFAG and SIB. The results revealed no statistically significant relationship

Table 7

Test of Sample Means Between Same-Sex and Opposite-Sex Sibling Pairs on the Strength of the Sibling Coalition

Group	n	M	SD	T	p-value
Opposite-Sex Sibling Pair	12	.10	.14	-.66	.51
Same-Sex Sibling Pair	12	.15	.17	-.66	.51

between the variables (Pearson correlation coefficient was .05).

A regression analysis was computed in an attempt to gain more detailed information about the relationship between the two variables. SIB was identified as the criterion variable and DFAG was the predictor variable. The results of the regression indicated that R^2 was .002, F = .05, $p < .82$. These findings suggested that the model did not fit the data.

Therefore, the null hypothesis was accepted and the alternative hypothesis was rejected. The data failed to show any significant relationship between age differences in the sibling pairs and the strength of the sibling coalitions.

Bonacich, Grusky and Peyrot's Status Maintenance Theory

Hypothesis 6

Hypothesis 6 examined the status maintenance assumption in family organization. This assumption is that the family system is composed of a hierarchical power chain with F>M>C4>C3. The theory predicted that family members would attempt to maintain this organizational structure by giving stronger support to the higher status family member in the decision-making task. Four variables were computed to represent the support received by each family member (i.e., FS, MS, C4S, C3S). Table 8 shows the means and standard deviations for the support received by each family member. The means of the support received by each family member partially supported Hypothesis 6. That is the mother received slightly more support than the father received, but this difference was not statistically significant. No statistically significant difference was found between the support received by the older child as opposed to the

Table 8

Summary Statistics for Support Received by Each Family Member from All Other Family Members (N=24)

Supported Member	M	SD	M_{SE}	Range
Father (FS)	5.00	5.03	1.03	0-18
Mother (MS)	5.33	6.16	1.26	0-25
Older Child (C4S)	2.50	3.04	.62	0-10
Younger Child (C3S)	1.75	3.05	.62	0-14

support received by the younger child either. However, a test of difference between correlated means, using a one-tailed test of significance, revealed a statistically significant difference between the support received by the father as opposed to that received by the older child ($t = 2.01$, $p < .02$).

From the data it can be concluded that the parents received significantly more support than the children. While the differential support given mother vs. father and older child vs. younger child should be noted, the real difference in this support was not statistically significant.

Therefore, the null hypothesis was accepted and the alternative hypothesis was rejected. The data failed to support the predicted preservation of the family organizational power hierarchy F>M>C4>C3. Parents did maintain their superior position vis-a-vis the children. However, mother received slightly more support from all family members than father received.

Convergence of Indicators of Coalitions

The measure of coalition employed for this study had not been subjected previously to any type of validation analysis. Since the testing of theoretical assumptions about the formation of coalitions in families hinges upon the utilization of a valid measure of the construct, validation analysis was performed as a part of this study.

Recall that in a family of two parents and two children, there are six possible two-member coalitions: mother with father, mother with older child, mother with younger child, father with older child, father with younger child, and older child with younger child. The operational

definition of strength of any of the six coalitions was the number of supportive statements made by two family members to each other compared to the total number of supportive statements made by all family members. The strength of each coalition was determined by an external rater who observed all videotaped family decision-making tasks.

Five different methods of validating the major construct, strength of family coalitions, were used in this study. Since the operational definition was determined by a rational decision of two family researchers, one of the five validation methods was a rating of the coalitions observed by a clinician. The other four methods of validation used responses by family members to questions about whether the outcome of the decision was what they wanted, whether the outcome was fair, whether these were typical teams (coalitions) of family members who side with each other, and in which mode decisions are usually made. The assumption was that the strength of the coalitions determined by the external rater would converge with the strength of the coalitions measured by the clinician and with the responses to the four questions by family members.

Cronbach (1971) noted that, on any given measure, persons or groups who score high ought to score high on other indicators of the same construct. These indicators may be other tests, behavioral ratings, or reports about the social groups to which a person belongs. The particular measure being investigated is related to other measures presumed to be indicators, though sometimes weak or indirect ones, of the same construct. Such an investigation looks for convergence of indicators. Convergence means that the measures at least tend to vary in

the same direction. In examining convergence, no one of the indicators is taken as a criterion or standard. Although indicators of the same construct are expected to converge, high correlations are not necessarily expected. The score on an observation is influenced by social-psychological elements in the situation, specific qualities of the stimuli, characteristics of the observer, and other variables.

Campbell and Fiske (1959) argued that measures of the same construct derived from dissimilar data ought to converge. They suggested that a correlational study of validity should encompass measures of the construct measured by two or more methods. The assessment of the convergence trends are given below.

Clinical Observation

One of the methods of testing the convergence of measures of a given construct is to use ratings by an expert in the area of investigation. The expert in this study was an experienced graduate level social worker. The social worker had extensive experience in structural family therapy (Minuchin, 1974). Coalitions are well-defined in structural family therapy and their identification within family systems is an integral part of the therapeutic model. The social worker was asked to rate the 24 family videotapes without prior knowledge of the hypotheses to be tested or the operational definition of the construct used in the study. The expert was told to score each of the six types of coalitions in the families on a global basis. Each coalition type was assigned a score from a continuum of 0 (not present in this family) to 10 (strongest possible coalition type). These expert scores were correlated with the medical student rater's scores (Rater 1) using Spearman's rank

correlation coefficient, since the scores were not numerically equivalent from one end of the scale to the other. These correlations are presented in Table 9. All correlations were positive, therefore tending toward convergence, even though the strength of the correlations was rather low. Only one correlation was statistically significant (i.e., the ratings of the M<->C3 dyad).

Expected Outcome

A second method of testing the construct validity of family coalitions was to compare the researcher's measure with family members' responses about the outcome of the decision-making game. The medical student rater's (Rater 1) ratings of the six coalition types were correlated with one of the outcome measures scored by all family members. Each family member was asked to respond to a question on the post-experimental game questionnaire that responded to their feelings about the outcome of the decision-making game. The question asked: "Think about what you said you wanted to do with the money before the game started. How much of what you wanted would you say you got as a result of the discussion?" The family members selected a score from a continuum (i.e., 0 represented having gotten "none of what I wanted" and 10 represented having gotten "all of what I wanted").

The results from the correlational analysis of this outcome measure with the ratings of the six coalition types revealed few statistically significant relationships between variables (see Table 10). When the coalition was strong between mother and younger child, father tended to report low satisfaction with the outcome. The older child tended to report a low level of satisfaction when the coalition strength was strong

Table 9

Spearman's Rank Correlation Coefficients of Videotape Ratings of Six Coalition Types by Rater 1 and the Expert Clinical Rater (N=22)

Rater 1 (Coalition Type)	Expert Rater (Coalition Type)					
	M<->F	M<->C4	M<->C3	F<->C4	F<->C3	C3<->C4
M<->F	.13					
M<->C4		.20				
M<->C3			.47*			
F<->C4				.10		
F<->C3					.11	
C3<->C4						.18

*p <.02

Table 10

Spearman's Rank Correlation Coefficients Between Rater 1's Ratings of Six Coalition Types and Family Members' Reports of Satisfaction with Outcome on Experimental Decision-Making Task (N=24)

Outcome Measures	Coalition Types					
	M<->F	M<->C4	M<->C3	F<->C4	F<->C3	C3<->C4
SATISFM	-.23	.19	-.30	.07	.05	.31
SATISFF	.24	-.20	-.40[a]	.17	.01	-.20
SATISFC3	.06	.10	.13	-.32	-.07	-.17
SATISFC4	-.30	.15	.25	-.14	-.49[c]	.44[b]

[a] $p < .05$

[b] $p < .04$

[c] $p < .02$

between father and younger child. However, older child tended to report high levels of satisfaction when there was a strong coalition with the younger sibling. Therefore, no clear pattern of convergence was apparent in the comparisons between these measures.

Fairness of Outcome

A third method of testing construct validity was to compare the researcher's measure with family members' responses about their feelings of fairness about the outcome. A second question from the post-experimental decision-making game questionnaire asked: "All things considered, how fair would you say the decision was?" The family members selected a score from a continuum (i.e., 0 represented "complete unfairness" and 10 represented "complete fairness").

The results of the correlational analysis of this outcome measure can be seen in Table 11. On the measure of fairness, father tended to report feelings of unfairness about the outcome when there was a strong coalition between mother and older child. Father tended to report strong feelings of fairness, when a strong coalition existed between older child and younger child. Therefore, the comparisions between these measures indicated no clear pattern of convergence.

Typical Coalitions

A fourth method of testing the validity of the construct family coalition was conducted by gathering data from each family member regarding their perceptions of the similarities between the coalitions they observed in the experimental decision-making task and the coalitions that typically occur when their family tries to make a decision. The question was asked on the post-experimental decision-making game

Table 11

Spearman's Rank Correlation Coefficients Between Rater 1's Ratings of Six Coalition Types and Family Members' Reports of Fairness of Outcome on Experimental Decision-Making Task (N=24)

Outcome Measures	Coalition Types M<->F	M<->C4	M<->C3	F<->C4	F<->C3	C3<->C4
FAIRM	-.18	.01	.01	.12	.16	.33
FAIRF	-.14	-.51[b]	-.09	.23	.29	.47[a]
FAIRC3	-.17	.06	-.20	.00	.24	.30
FAIRC4	.03	-.22	.11	-.21	.31	-.04

[a] $p < .02$

[b] $p < .01$

questionnaire: "Are these 'teams' or persons siding together the typical or usual ways that people act in your family when trying to make a decision?" Family members either responded 1=Yes, 2=No, or 3=Other. Family members' responses are reported in Table 12.

The results revealed that all four family members agreed that the coalitions observed in the experimental game were the typical coalition patterns in five families. Six families showed positive agreement in the responses of three out of four family members. And five families indicated positive agreement in two out of four family members' responses. Therefore, there was a trend toward convergence between these measures.

Mode of Outcome

A fifth method of testing the validity of the construct family coalition was conducted by attempting to determine the extent of agreement between Rater 1's rating of the decision-making mode employed by the family in the decision-making game and the parents' report of the family's decision-making mode in four different decisioning areas (i.e., children, chores, use of free time, and money). The question was asked of the parents in the semistructured interview: "Think about the last time your family had to make a decision in the area of (an issue about one or more of the children). How was the decision made?" The categories for types of decision-making mode were (a) group consensus, (b) majority rule, (c) parents' decision, (d) children's decision, (e) individual family member's decision, and (f) other. Rater 1 rated each family on decision-making mode using these six categories, after rating the coalitions in each family videotape.

Table 12

Family Members' Perceptions of Similarities Between Coalitions in the Experimental Decision-Making Game and the Typical Coalitions Occurring in the Family (N=24)

Family	Mother	Father	Younger Child	Older Child
1	1	1	1	1
2	3	3	3	3
3	1	1	1	1
4	1	1	3	3
5	2	2	2	2
6	1	2	1	1
7	1	2	2	2
8	2	1	1	1
9	1	1	1	1
10	1	1	1	1
11	3	1	2	2
12	1	1	3	2
13	1	1	1	1
14	3	1	1	1
15	1	2	3	1
16	3	2	1	2
17	2	2	3	1
18	1	1	3	-
19	1	2	1	1
20	3	1	1	1
21	1	2	1	2
22	1	3	3	1
23	3	1	1	1
24	2	1	2	2

1=Yes

2=No

3=Other

Determining a measure of agreement for these independent ratings of decision-making mode required measuring the reliability between the two observers. Bishop, Fienberg and Holland (1975) suggested that agreement can be regarded as a special case of association. The distinction between agreement and association for nominal data is that for two responses to agree, they must fall into the identical category, while for two responses to be perfectly associated we only require that we can predict the category of one response from the category of the other response. Cohen (1960) proposed the Kappa (κ) as a measure of agreement between two observers classifying subjects into two nominal categories. The Kappa statistic has been extended to multicategory classifications and used to assess not only reproducibility but also validity.

Kappa (see Maclure & Willett, 1987) was meant to be an improvement on the simpler measure, per cent of agreement, because it discounts the proportion of agreement which is expected by chance alone (P_e). Instead of the total proportion of observations on which there is agreement (P_o) being compared as a ratio with its maximum value (100%), the attributable proportion ($P_o - P_e$)— the fraction of observations for which agreement can be attributed to the reproducibility of the observations rather than to mere chance—is compared as a ratio with its maximum possible value (1 - P_e). Thus, $\kappa = (P_o - P_e) / (1 - P_e)$.

Comparisons of Rater 1's ratings of decision-making mode in the experimental decision-making game and the parent's ratings of decision-making mode in four different decisioning areas (i.e., children, chores, use of free time, and money) were made to determine the respective P_o for each set of comparisons. In the area of money decisions $P_o = .17$. For

decisions involving delegation of responsibility for chores, the P_o = .13. Decision-making in the area of issues related to the children showed P_o = .21. These three proportions were so small that Kappa was not computed. The strongest agreement (P_o = .54) occurred when Rater 1's ratings of decision-making mode in the experimental task were compared to the parents' ratings of decision-making mode in the area of the use of free time.

Table 13 summarizes the frequency of agreement between Rater 1's ratings and the parents' ratings on each of the six categories of decision-making mode. When Kappa was computed for these agreements, the results indicated that Kappa was .0039. A Kappa statistic of this magnitude indicated that the extent of agreement between Rater 1's ratings and the parents' ratings of decision-making mode occurred essentially by chance. Therefore, there appears to be no convergence of this measure with Rater 1's ratings.

Conclusions About Convergent Validity

Cook and Campbell (1979) noted that for researchers interested in theory testing, it is almost as important to show that the variables involved in the research have construct validity and internal validity as it is to show a causal relationship between the variables. Kerlinger (1979) echoed Cook and Campbell's position and argued that for an instrument to be valid, it must measure what the instrument-maker wants to measure and thinks he/she is measuring.

The findings from this construct validation analysis pointed out what Kerlinger (1979) called the "Achilles' heel" of behavioral research. That is, too often investigations are carefully planned and executed with

Table 13

Frequency of Agreement Between Rater 1's Rating of Decision-Making Mode in the Experimental Game and the Parents' Rating of Decision-Making Mode in the Area of Use of Free Time (N=24)

Parents' Ratings	Rater 1's Ratings						
	Group Consensus	Majority Rule	Parents' Decision	Children's Decision	Individual Family Member's Decision	Other	Total
Group Consensus	12	2	0	0	0	2	16
Majority Rule	0	0	0	0	0	0	0
Parents' Decision	6	0	1	0	0	0	7
Children's Decision	0	0	0	0	0	0	0
Individual Family Member's Decision	1	0	0	0	0	0	1
Other	0	0	0	0	0	0	0
Total	19	2	1	0	0	2	24

too little attention paid to the measurement of the variables of the research. The whole measurement procedure of even simple variables is highly indirect, complex, and often difficult. Tests and measurements must be used with caution and discretion.

In this study the researcher planned an elaborate experiment to test hypotheses from two theories of coalition formation in families. The chain of reasoning from the experimental implications of the theories seemed valid. The experimental procedures were carefully planned and executed to test the deductions. Specific statistical predictions were made about the relationships between the variables under investigation. Any of several factors could have affected validity. The theory could have been faulty, the experiment could have been inadequately planned, the subjects could have been unsuitably chosen, the instruments could have been invalid. Since there had been no validation of the measure of the dependent variable, family coalitions as the proportion of supportive statements dyads made to each other in a decisioning task, a major purpose of this study was to run the experiment to test its validity.

In order to measure a variable adequately, the researcher has to use more than one exemplar. Both construct validity and reliability can be threatened, since single operations both underrepresent constructs and contain irrelevancies (Cook & Campbell, 1979). No single measure is perfect. The probability is high that even if significant differences exist between variables, they will not be detected simply because the measure of the dependent variable is not reliable or valid enough to pick up the differences. Construct validity was such a major concern of this experiment that plans were made for testing construct validity. Data

analyses were performed which examined convergent validity between the measure and other indicators of the same construct.

The finding of no support for the construct validity of the measure of family coalitions resulted in a serious threat to the internal validity of the study. The term internal validity was used by Cook and Campbell (1979) to refer to "the validity with which statements can be made about whether there is a causal relationship from one variable to another in the form in which the variables were manipulated or measured" (p. 38).

Cook and Campbell (1979) concluded that the important point is that construct validity consists of more than simply assessing the fit between planned constructs and the operations that were tailored to these constructs. It is quite reasonable to use the obtained pattern of data to edit thinking about both cause and effect constructs. The researcher can suggest, after the fact, other constructs that might fit the data better than those with which the experiment began. Implications for future research and further development of the construct, family coalition, will be discussed in the next chapter.

CHAPTER IV

SUMMARY, DISCUSSION, AND IMPLICATIONS

Summary

The major conceptual focus of this research was to expand systematically the investigation of family power beyond the marital dyad. Collective power dynamics were examined by measuring the variety of coalitions that form in multiple-member, nonclinical family groups. This study was designed to generate empirical evidence to challenge the belief that coalitions other than parent-parent coalitions are pathological. The purposes of the study were (a) to test two theories of coalition formation in families, and (b) to test the reliability and validity of an instrument designed for measuring family coalitions.

Using data from 24 two-parent, two-children, nonclinical families, this research examined the types of coalitions and the conditions under which they develop in a conflictual decision-making situation simulated experimentally in the laboratory. The data were collected via psychological inventories, questionnaires, face-to-face interviews, and videotaped family interactions.

Coalitions were measured as a proportion (i.e., the frequency of supportive statements made by two family members to each other compared to the total number of supportive statements made by all family members during the experimental decision-making game). The six possible coalition types in a family of four (F<->M, F<->C3, F<->C4, M<->C3, M<->C4, and C3<->C4) were aggregated and examined at the level of parent,

parent-child, and sibling coalitions. Theoretical assumptions about the relationship between various structural variables in the family and the likelihood of a particular type of coalitional pattern developing were investigated.

The relative strength of sibling coalitions versus parent-child coalitions was examined under the existing condition of a strong parental coalition in the family. Under the condition of one clearly dominant parent in the family, the coalitional pattern of the weaker parent was examined. In family situations in which two parents had nearly equal status and did not have a strong parental coalition, the relative strength of parent-child coalitions versus sibling coalitions was investigated. Characteristics of the sibling pair (i.e., differences versus similarities in age and sex of each sibling) were compared against the relative strength of the sibling coalition in the family. Finally, the relative strength of the support received by each family member was determined. Of these structural family variables, only the existence of a strong parental coalition significantly predicted the coalitional patterns in the family.

Discussion of the Findings

Of the six hypotheses that were presented, only the first of six was supported empirically. In this sample, a family with a strong parental coalition tended to have stronger sibling coalitions than parent-child coalitions just as Hypothesis 1 predicted. This finding differs from the relationship that was identified by Bonacich, Grusky and Peyrot (1981) in their testing of Caplow's (1968) theory. In their study of 48 four-person families, they identified high levels of mutual parental support

reflective of a strong parental coalition. However, the children in their study did not form the predicted counter coalition because they showed no tendency to support each other in disputes. One major difference in the methodology between the study by Bonacich et al. and this study was its use of retrospective reporting of past conflict situations as opposed to videotaped observations of an actual, albeit simulated, conflict situation. The co-existence of strong parental and strong sibling coalitions in this stable, nonclinical sample challenges the commonly held belief that coalitions other than parental ones are pathological. Minuchin (1974) has acknowledged the necessity of parental and, to a lesser extent, sibling coalitions for normal family functions.

Hypothesis 2 addressed Caplow's (1968) proposition about the formation of revolutionary coalitions in families. A family power structure dominated by one of the parents was hypothesized to be more likely to contain revolutionary coalitions between the weaker parent and the older child. Recall that revolutionary coalitions subvert the organizational power structure by reducing the most powerful to the least powerful. The data failed to show any particular coalition pattern between the weaker parent and the children. One possible explanation for this finding may have to do with the interdependencies of the measures being investigated. Specifically, the indicator factor for clarity of parental dominance was derived from the same data source (i.e., frequencies of supportive acts) as were the coalitional measures themselves. Also, when the total amount of support received from all family members was considered, the difference between the amount of support received by father versus mother was nonsignificant. The latter

finding raises questions about whether or not true parental dominance was even apparent in the families studied.

Hypothesis 3 examined familial conditions that were expected to stimulate intense sibling rivalry. Families composed of parents who were nearly equal in power but who did not have a strong parental coalition were predicted to afford the siblings coalition opportunities. In these families, sibling rivalry would be intense and bitter as children competed among themselves for shifting coalition opportunities. The data failed to support this hypothesis. However, there was no evidence to support the predominance of parent-child coalitions over child-child coalitions.

Sibling conflict and intense rivalries typically stem from what Homans' (1961) exchange theory referred to as perceptions of distributive injustice. Under these conditions, the redress behavior on the part of the child will manifest itself in the form of guilt, anger, tattling and coalition formation. Ihinger (1975) proposed that if parents referee conflict situations between children according to rules or principles consistent from situation to situation, then there will be less conflict in the sibling relationship. Unfortunately, no measure of parental referee behavior was included in this study. A possible proxy for this variable might be the extensive use of the group consensus decision-making mode employed by families in the experimental decision-making game. Parents who seek to reach consensus in family decision-making may, in fact, be managing conflict and working to reduce any perceptions of distributive injustice among the siblings. This attempt by the parents to minimize siblings' perceptions of unfairness in family situations

might also result in a reduction in the frequency of coalition formation. Also, the directions for the decision-making game might have influenced family patterns in that families were told to reach a family decision. It might be interesting to compare the findings from this study with findings from a different experimental situation in which competition was encouraged by directing the family members to maximize self-interest.

Hypotheses 4 and 5 examined structural variables within the sibling pair. Age and sex differences in the sibling pair were predicted to have implications for the strength of coalitions between the siblings. Specifically, stronger coalitions were expected to be more likely to form between same-sex siblings than between opposite-sex siblings. Also, stronger coalitions were expected to be more likely to form between siblings who were closer as opposed to more distant in age. Practically speaking, same-sex sibling coalitions were slightly larger than opposite-sex sibling coalitions, but no statistical significance was found between the two groups. The test for the relationship between age differences in the sibling pair and the strength of the sibling coalition showed no relationship between these two variables.

Gerstl (1956) attempted to test Caplow's (1956) original model of coalitions in a triad by surveying 50 sibling triads. All siblings were asked to reconstruct retrospectively various aspects of their sibling subsystem. Of the 50 triads, 23 were found to contain coalitions verified by the separate reports of all three siblings. In that study, all but two were coalitions of same-sex siblings. The age difference between coalition partners was considerably less than between siblings who did not form coalitions. Sibling coalitions appeared to be based on

similarity of sex, age, and interest rather than on the balance of power in the triad. The findings from Gerstl's study raise an interesting point about the present study. In Gerstl's study there were triads of siblings, which offered some options about choice of coalition partner. Clearly there was greater variation in age and sex of potential partners than in the present study. In the present study a sibling could only choose whether or not to enter a sibling coalition, as no choice for partners was available.

Bonacich, Grusky and Peyrot (1981), in their test of Caplow's (1968) theory, found no significant differences in age or sex effects on sibling coalition strength. This finding, however, was related to the fact that children in their study did not show a tendency to support each other in disputes. Bonacich et al.'s study, like Gerstl's (1956) study, involved retrospective reporting of coalition behavior as opposed to the direct observation approach employed in the present study.

Hypothesis 6 examined the major assumption of Bonacich, Grusky and Peyrot's (1981) status maintenance theory. It was posited that the family was composed of a hierarchical power chain with F>M>C4>C3. This organizational structure was, according to the theory, maintained by all family members by virtue of their giving stronger support to the higher status family member in a conflictual decision-making situation. Only partial support was found for this hypothesis. Parents received significantly more support than children received. Mother received slightly more support than father; father received more support than older child; and older child received slightly more support than younger child received. These findings are consistent with Bonacich et al.'s

results in their own testing of the theory. Coalition patterns appear to maintain power differences between parents and children.

Bonachich, Grusky and Peyrot (1981) posited that status maintenance theory provides an alternative interpretation of the greater expressivity of mothers, an explanation unrelated to Parsons' and Bales' (1955) assumption of an incompatibility between instrumental and expressive roles in families. Expressive behavior counteracts group tensions that arise from goal-directed hierarchically organized activities. Expressive leaders promote equality and they are well-liked. Status maintenance theory implies that the typically less powerful mother will have a more expressive role than the father. To the extent that receiving support can be identified with being liked, then the mother can be considered an expressive specialist in this sense. Mothers in the present study received more support than any other family member (a finding also true in Bonacich et al.'s empirical study). An interesting note, although outcome was not the focus of this study, was that in 11 out of 24 families the mothers' suggestions for resolving the decision prevailed in the final analysis.

Examination of the Usefulness of the Theoretical Models

This study attempted to test social-psychological theories of coalition formation originally derived to explain and predict the behavior of individuals in small ad hoc experimental groups. The methodology which has been developed to experiment with individuals and with artificial groups does not apply directly to the measurement of typical patterns of an ongoing system. Haley (1962) argued that there are marked differences between family experiments and small group

experiments. In the small group experiment a situation is arranged for several unrelated people and measurement is taken of the effect of that context on their behavior. In the family experiment the problem is to measure how members of a group with a history typically respond to each other, while attempting to eliminate as much as possible the effect of that particular setting on their performance. Haley argued that some adaptation of small group theory and methodology might be possible for family experimentation; however, it would seem that measurement of even quite rigid and crude patterns in a particular family might differ markedly from the effect of different contexts on unrelated people who have been placed in them.

The two coalition theories tested in this study provided a rather simplistic set of assumptions and predictions about the behavior of individuals in a given context. The issue of family history, not to mention the future that the family group shared (unlike the ad hoc group), could easily have influenced the behavior of individual group members in much more highly complex ways than the theories proposed.

Power as measured by indicators derived from small group interaction was not found to be strongly related to the authority structure of the family in the hypothesized manner. This indicates a well-known difference in the quality of interaction between family members and unrelated members of ad hoc experimental groups. Scott (1962) noted that the family "cares" for the powerless individual. The so-called powerless member of the family often does not feel as powerless in the family group as a person in a similar lowly power position feels in other groups. Also, the balance of power in the family group may be more susceptible to

variations stimulated by the severity of consequences related to the experimental task.

The primary focus of the present study was to examine some of the causes and consequences of family coalitions in intact, nonclinical families. All types of coalitions were identified in this sample, but conservative coalitions between members of equal status (i.e., parent-parent and child-child) predominated. The systematic consequences of various types of coalitional patterns have been described, but the consequences for the individual remain the subject for future investigations. The present study takes a first step in that direction by describing coalition dynamics in nonclinical families. This would seem to be a prerequisite to understanding what types of coalition behaviors are "pathological" and have detrimental effects on child development.

Methodological Issues, Strengths, and Limitations

Another purpose of this research was to develop a reliable and valid measure of coalitions in families and to develop a decision-making game which would simulate family decision-making patterns in the laboratory. The game proved useful in simulating a decisioning event for the families. However, the results of the correlational analyses to assess the levels of validity and reliability of the measures employed in the study proved to shed considerable doubt on the internal validity of the testing of theoretical predictions about the relationships between variables.

In the final analysis, the suspect results of the theory testing become far less important than the researcher's attempt to develop a

reliable and valid measure of the construct, family coalitions. The lack of convergence between the researcher's measure of coalitions and other measures of coalitons suggests that simple frequency counts of supportive acts between family members somehow do not capture the complexity of the construct. It does however provide data for other family researchers who might otherwise have used Bonacich et al.'s (1981) construct for investigating family coalition formation. Furthermore, the results of the analyses may provide a base upon which other researchers can begin to develop a construct that is sufficiently complex to represent the intended theoretical notion of family coalitions.

This study has taken a first step in moving the investigation of family power beyond the husband-wife dyad. Collective power dynamics were examined by observing all family members as they engaged in a decisioning event. Whether the behavior observed can be labeled "coalitions" legitimately or not, there was clear evidence of active involvement of children in the decision-making processes of the families. Children influenced the final outcome of the decisioning through the exercise of individual power and through joint persuasive efforts with other family members.

The gathering of self-report and observational data provided both an "insider's" and an "outsider's" view of family decision-making processes. This combination of information may serve to expand theoretical models of family decision-making. Also, the sampling of a nonclinical family population may provide a benchmark for comparisons with distressed families.

There were a number of threats to the internal and external validity of the study. The situational-specific nature of the single-session or single-observation experimental task raises issues of reliability and generalizability to the everyday patterns of decision making which occur in families. Epstein (1980) noted that this is a problem for behavioral research in general. In defense of the single-session experiment, Epstein argued that they can be of value by stimulating other studies and by contributing to a population of studies that can ultimately be interpreted in the aggregate. Epstein's point is particularly salient when the researcher is embarking upon uncharted areas of investigation such as collective power dynamics in families.

Epstein (1980) also noted that data derived from single-observation experiments often produce few statistically significant relationships, and among these few there is often a lack of coherence. When data are aggregated over an increasing number of events, the standard deviations decrease, demonstrating that the high standard deviations from the single-observation experiment are the result of error of measurement (i.e., transient factors unrelated to the phenomenon being investigated). Therefore, one unavoidable conclusion is that the measure of the laboratory behavior itself was possibly unreliable and as a result incapable of establishing strong relationships. The situational uniqueness of the single-observation experiment may preclude the establishment of reliable generalizations that hold even in the most minor variations in the situation.

The consistency of a set of measurements may be approached from two somewhat different viewpoints of intraindividual and interindividual

variability. Only interindividual variability was examined in this study. Two parallel measures of family coalitions were obtained and the correlation between the two sets of scores served as a more or less direct index of the consistency of the measurements. The importance of this type of reliability assessment was diminished somewhat by the lack of availability of two external raters who were unaware of the hypotheses being tested and the research questions. However, the method of reliability assessment used in this study did provide evidence of the extent to which the measure of family coalitions set objective criteria for another experimenter to follow. Future research should involve ratings of the videotapes by two independent raters. Also, intraindividual variability in the consistency of measurements should be examined through a set of repeated measurements by two independent raters.

Another potentially limiting aspect of the study was its relatively simple design. The study attempted to address complex family processes through a simple design that is easily replicated and cost-efficient. This aspect of the research is critical when the researcher is operating without funding or with limited financial support. Findings from a study such as this one should pique the interests of funding agencies and allow for the development of more complex studies in the future.

A methodological problem of this study and previous investigations of coalitions in families is the way in which coalitions have been measured. No studies were identified which reported any determination of construct validity. For this research, the operational definition of a coalition derived by Bonacich, Grusky and Peyrot (1981) was adapted.

Coalitions were measured as a proportion (i.e., the frequency of supportive statements or acts made by two family members to each other compared to the total number of supportive statements made by the family in the experimental decision-making game). Several measures of coalitions were made and their degrees of association with the primary definition of the construct were computed.

The relatively weak strength of the correlations between the various indices of coalitions is not unusual in family measurement research. Miller, Rollins and Thomas (1982) noted that the few attempts to find support for convergent validity of single constructs using multiple methods have been unsuccessful. They reported that convergent validity within two behavioral observation methods or within two self-report methods has shown the best results in other studies.

One method was to compare a counting technique with a global technique. In the present study, the behavioral observations of two raters showed rather low levels of association. This finding might be related to the different levels of conceptualization employed by each observer. The medical student rater was rating family supportiveness (i.e., specific behavioral acts), while the expert rater was making global assessments of the overall strength of a coalition type.

Another method was to compare the results of counting supportive statements or acts to determine coalitions with self-report responses by family members about who supported whom. The low levels of association found between observational and self-report data in this study are not uncommon to family measurement research. Olson (1977) has attributed these low levels of association to the fact that two different domains

are being tapped. Self-reports, he contends, are an "insider's view" (i.e., a subjective measure of relationships) while behavioral observations are an "outsider's view" (i.e., a more objective measure of relationships). Perhaps it is unrealistic to expect them to coincide. Rather than giving preference to either self-report or behavioral measures, Olson encouraged the expansion of our theoretical models through the utilization of data from both an insider's and an outsider's frame of reference.

The size of the sample (24 families) and the selection process (i.e., a replictated systematic random sample from two elementary schools in central North Carolina) created a number of concerns. Limitations in the generalizability of the findings are obvious. The small sample size precluded certain statistical analyses and contributed to the lack of statistically significant results found in some of the analyses that were performed. Even if the sample size had been 30 families as originally planned, this situation would have been imporved only slightly.

The rather low participation rate sheds reasonable doubt on the randomness of the sample and the external validity of this research. Families who agreed to participate might differ markedly from those who refused. For example, a family having difficulty between members would doubtfully come in to put their difficulties on public display. It would seem illogical to assume homogeneity among the nonclinical families. Actually a nonclinical sample includes a variety of types of families rather than a single "nonclinical" type. The self-selection factor in the sample and the one-time measure of coalition formation makes generalizations about the results questionable.

A strength and a weakness of the present study was its investigation of the whole family and its use of multiple sources of information about the family. Cromwell and Olson (1975) argued that marriage and family researchers would benefit both methodologically and theoretically by gathering data from more than one family member. Increased reliability and validity as well as greater insight into family function were presented as potential benefits. Miller, Rollins and Thomas (1982) argued that the potential benefits of measuring multiple family members must be weighed against the problems created at the data analysis stage. However, researchers working with data sets from multiple family members struggle with serious problems resulting from analyzing data from correlated measures.

In the present study, data sets included responses of father, mother, older child, and younger child. The family is the sampling unit but what is the unit of analysis? In this study dyadic behavior was examined and then aggregated at the level of parent, parent-child and sibling coalitions. This approach to data analysis created problems of statistical testing and inferences based on the given population. Another problem emerged when the researcher attempted to use data from more than one family member simultaneously. The issue of multicollinearity of measures precluded the use of some traditional correlational analyses.

Implications for Future Research

Many of the suggestions for future research flow from the limitations discussed above. Epstein (1980) discussed an effective procedure for reducing the situational specificity of findings from a

single-observation experiment. His suggestion for a procedure would also increase the potential for replicability and the generalizability of the findings. Epstein recommended conducting experiments in which data are averaged over stimuli, situations, and/or occasions. A procedure in which behavior is sampled over stimuli and occasions permits replicability and generalizability to be assessed and taken into account in interpreting the findings from a particular study and in planning further studies.

The use of causal path analysis (Proctor, 1987) and Joreskog's and Sorbom's LISREL (1978) can be helpful in future research, as problems of correlated measures appear to be inherent in the analysis of data from multiple family members. Confirmatory factor analysis and structural equation models are specifically designed to allow for correlated measures. The researcher can identify specific measures that share common method variance and analyze accordingly. A more fully developed model of the whole family could be tested, rather than having to resort to data analysis carried out at the level of dyadic relations. (See Miller, Rollins and Thomas, 1982, for a detailed discussion of measurement from multiple family members.)

More attention should be given to the salience of the experimental task in future research. In a low risk hypothetical game-like task, parents may be less likely to exert the types of power strategies they would employ in more serious decisioning arenas. For example, in decisions about the expenditure of large sums of money, children might have considerably less voice than in decisions about the use of free time. Also, to vary the decisioning arenas investigated would strengthen

the generalizability of the findings. To the extent that a "real" decision can be examined (e.g., actually giving the family $100.00 or $500.00 to decide how it would be used), this would increase the relevance of the task and perhaps more closely simulate typical patterns of decision-making in the family.

Future research in this area must address the complex issue of coalitions that are larger than the dyad. Clearly, family members jointly use resources in triads and in larger units in families with more than four members. When analyzing the full range of possible combinations in a family of four members, there are conceptually hundreds of possible units of analyses. More sophisticated mathematical models may be required for a complete analysis of coalitional processes.

Further examination of the conceptualization and measurement of coalition formation is clearly indicated. Within the context of power dynamics, coalition formation implies opposition or the presence of conflict. Supportive statements of family members can be considered indicators of coalition formation only after at least one of the family members has expressed an opposing viewpoint. It is important to test out this proposed differentiation between agreement and coalition formation. Future research could compare family members' alliances prior to and after the opposing viewpoint has been expressed. To establish the theoretical significance of a distinction between agreement and coalition formation, research could examine whether members switch alliances after opposition, drop out of the discussion, or change their prior position.

Coalition formation is a process, and its analysis requires process data such as sequential analyses. To fully understand coalition

processes, the researcher need not only ask: Who supports whom? It is also necessary to ask: Who coalesces against whom? In other words, whether and which coalitions form may depend on which family member introduced the initial proposal and which family member introduced the opposing viewpoint into the discussion. Family members also may change their alliances during one decision task. In order to advance the knowledge base on family power, researchers will have to develop concepts and measures that do justice to the complexity and processual nature of family power dynamics.

Further comparisons of the measure of family coalitions with standardized measures such as the Beavers-Timberlawn Family Evaluation Scale (Lewis, Beavers, Gossett, & Phillips, 1976), which has a family coalition component, might shed additional light on the construct validity of the measure used in this study. The availability of the videotaped family interactions from this study allows for multiple ratings of the simulated decisioning event.

Future investigations of collective power dynamics in families should shift the context for experimentation from the laboratory to the home. The greater availability of technologically sophisticated video equipment and the familiarity of many families with videotaping equipment may create a situation in which actual decisioning events could be taped in an unobtrusive manner in the home. Certainly the availability of repeated measures across different decisioning areas and over time would provide a more comprehensive picture of the coalitional patterns in families.

Approaches to assessing videotaped interactions such as the Interpersonal Process Recall Method (Kagan & Burke, 1976) could be used to tap the more phenomenological aspects of coalition formation. That is, family members would be asked to view segments of the videotapes and to recall what they were thinking and feeling at a given point in time. Family members might also become raters of their own coalitions by viewing the videotape and rating their decisioning event. Multiple operationalizations of the construct of family coalitions and multiple measurements would enhance the possibility of triangulating on the referent and ultimately producing a valid and reliable measure of family coalitions.

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APPENDIX A

SAMPLE CHARACTERISTICS OF ALL 62 FAMILIES

SAMPLE CHARACTERISTICS OF ALL 62 FAMILIES (PARENTS)

Characteristic	Men (N=62) MEAN	SD	Range	Women (N=62) MEAN	SD	Range
Age	38.9	6.0	28-54	36.4	4.8	27-48
Education	14.5	1.0	10-22	13.7	.8	9-18
Income (range in thousands)	29-31 (median)		7-50+	9-11 (median)		0-37
Years Married	16 (median)		9-23	16 (median)		9-23
Hours Worked Per Week	50.7	10.8	38-99	36.5	9.8	10-54
Race						
Black	24.2%			24.2%		
White	74.2%			74.2%		
Other	1.6%			1.6%		
County of Residence						
Durham	45.2%			45.2%		
Wake	54.8%			54.8%		
Times Married						
One	90.2%			93.4%		
Two	9.8%			6.6%		

SAMPLE CHARACTERISTICS OF ALL 62 FAMILIES (CHILDREN)

Characteristic	C3 Youngest Child (N=62)			C4 (N=56)			C5 (N=23)		
	M or %	SD	Range	M or %	SD	Range	M or %	SD	Range
Age	6.7	3.3	1-12	10.4	3.5	5-17	11.3	4.4	6-23
Sex									
Male	47.5%			46.4%			43.5%		
Female	52.5%			53.6%			56.5%		

Characteristic	C6 (N = 3)			C7 Oldest Child (N=1)		
	M or %	SD	Range	M or %	SD	Range
Age	14.0	6.1	10-21	11.0	---	11
Sex						
Male	66.7%			0.0%		
Female	33.3%			100.0%		

APPENDIX B

RECRUITMENT LETTER

North Carolina State University
School of Humanities and Social Sciences

Social Work Program
Department of Sociology and Anthropology
Box 8107 Zip 27695-8107
(919) 737-3291

Dear Parent:

"The American family is changing." You have probably heard this said as often as we have. Like us, do you wonder what kind of changes really are occurring and what they might mean for families like yours?

As a group of health professionals who study and work with families, we are asking families to help us answer these questions. We have important things to learn from all kinds of families, but right now we want to talk just with two-parent families--about how they make decisions, how parents and children communicate with each other, how parents deal with the stress of raising a family in today's changing world.

The Director of Research for Durham County Schools has given us your name, address, and phone number for the purpose of this study. Any participation from here on will take place only if your family agrees to it. To be eligible, your child must be in the 6-12 age group and must be presently living with both natural parents.

Families who agree to participate will come in for a single interview at a site in Raleigh or Chapel Hill. Both parents and all children in the family will be included. The interview session will last about 2-1/2 hours.

Family members will be asked to fill out some questionnaires and to provide some background information. They will also be videotaped while playing games together. Families will be paid $10 for their time. After the study has ended, we will also send each family a summary of our discoveries about the various ways families cope with the pressures of living in the 1980s.

A member of our staff will be calling you sometime during the next few weeks to tell you more about our study. We will be glad to answer any questions you might have at that time. We sincerely hope that you will be willing to share your knowledge and experience of your family with us.

Sincerely,

Nancy J. Warren, Ph.D. — University of N. C. — 966-3377
Eleanor R. Ilgen, M.S.W. — Medical School — 966-2023
J. S. Toby Brown, M.S.W. — N. C. State University — 737-3291

APPENDIX C

LETTER OF CONFIRMATION

North Carolina State University
School of Humanities and Social Sciences

Social Work Program
Department of Sociology and Anthropology
Box 8107 Zip 27695-8107
(919) 737-3291

_____

Dear _____:

Thank you for agreeing to participate in the research project on family interactions. If you will fill out the enclosed forms it will speed things up in our session on _____. I have clearly marked the forms husband and wife for your convenience. Please read the direcions carefully and fill out the forms completely and bring them with you to the scheduled session. Thank you in advance for your cooperation.

Sincerely,

James S. (Toby) Brown
Assistant Professor

Checklist of Forms to Complete and Bring to the Session

Family Environment Scale	mother ____	father ____
Life Experiences Survey	mother ____	father ____
Parent Report of Child Behavior to the Parent	mother ____	father ____

Session Location: North Carolina Memorial Hospital
Main Lobby
Manning Drive
Chapel Hill, NC

Note: Please call if you are unable to make the appointment: Work 737-3291
Home 834-4931

APPENDIX D

CONSENT FORM FOR PARTICIPATING SUBJECTS

CONSENT FORM

Interaction Patterns of Normal Families

I agree for myself and my child(ren) _____ to participate in a research study entitled "Interaction Patterns of Normal Families." I understand that the study has two goals. One is to learn more about the interaction patterns of normal healthy families and the other is to evaluate a relatively new measure of family interaction patterns called the Family Interaction Rating System.

I understand that I will participate in one thirty-minute observed and videotaped session playing with my child(ren) using building blocks and Chinese Checkers, and discussing a family decision; and will be given paper and pencil questionnaires to assess my perceptions of my child's behaviors (Eyberg Child Behavior Inventory), my attitudes about parenting (Parent Questionnaire), and my perceptions of our family (FES). Further, my children will be observed and videotaped playing with me, and answer questions about their views of themselves and the family (Self Observation Scales, FES, Perception of your Parents, and Family Drawing). In addition, if you consent, the school(s) which my child attends will be asked to fill out a questionnaire regarding my child's functioning in school. I understand that all these procedures are experimental, and not used for clinical evaluation or assessment of families. I understand that approximately 60 families will participate in the study.

I understand that after I complete the play task and the questionnaires, my family and I will receive $10.00 in exchange for our time. I do not expect any other direct personal benefit for myself and my family from participation. I understand that the information gained from the videotape session will be used to evaluate the reliability and validity of the Family Interaction Rating System, and to increase scientific knowledge about the ways ordinary families play and interact together. Although it is not possible to foresee all possible risks, no physical and emotional risks are expected from these procedures. I understand that the only persons who will see the test materials are those involved directly in the research (Principal Investigator and Research Assistants). All videotapes and records will be given code numbers and kept locked within the hospital.

I understand that Nancy J. Warren, Ph.D. (919/966-3377) is directly responsible for this project. Should I have any questions or complaints, she may be contacted at any time. I also understand that I am free to withdraw from the study at any time. I understand that this study has been approved by the Committee on the Protection of Human Subjects of the School of Medicine of the University of North Carolina. If I feel there has been any infringement of my child's or family's rights, I may contact the chairman of the Committee on the Protection of the Rights of Human Subjects, John C. Herion, M.D. at (919/966-1344). I understand that in the event of physical injury directly resulting from the research procedures, financial compensation cannot be made. However, every effort will be made to make available to me the facilities and professional skills of the University of North Carolina at Chapel Hill.

I understand that the facilities of Wake Teen Medical Services, Inc. have been made available for the purposes of this research study. However, Wake Teen Medical Services, Inc. is in no way involved in the actual research project. Therefore, I agree to hold Wake Teen Medical Services, Inc. harmless in the event of any infringement of my child's or family's rights.

I agree to participate in this study on family interactions.

Parent: _____ Date: _____

Parent: _____ Date: _____

Children: _____ Date: _____

_____

_____

Witness: _____ Date: _____

APPENDIX E

PRE-EXPERIMENTAL DECISION-MAKING GAME QUESTIONNAIRE

Family ID #_____

Family Member Age_____

Sex_____

Decision-Making Game: Pretend, for a moment, that I had $100.00 which I could give to you and your family to do with as you please. The only thing is that all of you would have to decide together how your family would use the $100.00. You and your family could do anything you wanted to with the money. You could use it for fun activities or you could use it to pay for something your family wants or needs. Your family could choose to use it together or choose to divide it.

For the next 10 minutes, please discuss and make a decision about how you would use the $100.00. I will let you know when 5 minutes, 8 minutes, and 9 minutes have gone by. I will stop you at the end of the 10 minutes.

(PLEASE ANSWER THE FOLLOWING QUESTIONS BEFORE WE BEGIN)

1. What do I want the family to do with the $100.00?

2. Which person or persons can I count on to side with me or can I talk into going along with my idea for using the $100.00?

   Mom _____

   Dad _____

   Sister _____

   Brother _____

   No One _____

3. Which one person do you think is most likely to get his or her way or to have the most influence (power) in the decision about how to use the $100.00?

   Mom _____

   Dad _____

   Sister _____

   Brother _____

   I will get my way_____

APPENDIX F

POST-EXPERIMENTAL DECISION-MAKING GAME QUESTIONNAIRE

Family ID# _____

Family Member Age _____

Sex _____

Decision-Making Game: Follow-up Questionnaire

Thinking about the Decision-Making Game you played in the last 10 minutes of the videotaping today/tonight, please answer the following questions:

1. Which family members joined together or took sides with each other in an attempt to get their way about how the money would be used by the family?

   mother & father____ mother & younger child____ father & younger child ____

   mother & older child____ father & older child____ children together _____

   other_____

2. Are these "teams" or persons siding together the typical or usual ways that people act in your family when trying to make a decision?

   Yes____ No____ Other_____

3. Did your family act the way it does most of the time in trying to decide how to use the money?

   Yes____ No____ Other_____

4. Think about what you said you wanted to do with the money before the game started. How much of what you wanted would you say you got as a result of the discussion?

0	1	2	3	4	5	6	7	8	9	10
None of what I wanted										All of what I wanted

5. All things considered, how <u>fair</u> would you say the decision was?

0	1	2	3	4	5	6	7	8	9	10
Completely unfair										Completely fair

APPENDIX G

FAMILY BACKGROUND INFORMATION FORM

ID#_____
DATE_____

FAMILY INTERACTION STUDY

BACKGROUND INFORMATION

MOTHER

1. What is your age now?_____

2. When were you born?_____
Mo. Day Yr.

FATHER

3. What is your present age?_____

4. And when were you born?_____
Mo. Day Yr.

MOTHER

5. How far did you go in school? [Get specific grade.]_____

FATHER

6. How far did you go in school?_____

BOTH

7. When did you get married?_____
Mo. Day Yr.

7a. Is this your first marriage? Mother_____ Father_____

Explain:

8. How long were you engaged before you got married?_____

9. How long did you date before you got married?_____

10. How long did you know each other before you started dating?_____

MOTHER

11. Which of the following racial or ethnic groups do you consider you belong to?

    a. Caucasian, non-Hispanic

    b. Black, non-Hispanic

    c. American Indian

    d. Hispanic

    e. Other [identify]_____

FATHER

12. Which of these groups do you consider you belong to?

    a. Caucasian, non-Hispanic

    b. Black, non-Hispanic

    c. American Indian

    d. Hispanic

    e. Other [identify]_____

MOTHER

13. What part of the United States [or world] did you grow up in?_____

FATHER

14. What part did you grow up in?_____

MOTHER

15. Do you consider the place where you grew up as urban, suburban, or rural? Indicate your answer on this scale: RURAL URBAN

    1 2 3 4 5

FATHER

16. How about you? RURAL URBAN

    1 2 3 4 5

BOTH

17. What kind of area do you live in now?
RURAL URBAN
1 2 3 4 5

BOTH

18. Do you live in a single-family house, multi-family house (for ex., a duplex), an apartment, or a condominium?_____

19. Do you own or rent?_____

20. How long have you lived at your present address?_____
_____

21. How many people live in your household?
_____adults and _____children

22. Does anyone who is not a member of your immediate family live in your household? If so, who is it?_____
_____

23. Does any member of your immediate family not live at home with you? Please explain._____
_____

24. When were your child(ren) born? (month, date, year)

Youngest_____

Next_____

Next_____

Next_____

Next_____

WORK, WORK HISTORY AND CHILD CARE

MOTHER

25. What type of work do you do (asked to the mother)? Job title, description of the work.

26. How many hours per week are you working for pay?

27. What hours do you work?

28. How long have you had this job?

29. What type of job did you have before that?

30. How did you decide to take the job you have now?

31. How does your work affect the family/ the children?

32. Do you feel that the family benefits or suffers from your job?

benefits ----------suffers

5	4	3	2	1

33. Are you happy with your current work arrangements, or would you like to change anything about your job, hours, pay, or status?

very happy very unhappy

5	4	3	2	1

FATHER

34. What type of work do you do (asked to the father) ? Job title, description of the work.

35. How many hours per week are you working for pay?

36. What hours do you work?

37. How long have you had this job?

38. What type of job did you have before that?

39. How did you decide to take the job you have now?

40. How does your work effect the family/ the children?

41. Do you feel that the family benefits or suffers from your job?

benefits ----------suffers
5 4 3 2 1

42. Are you happy with your current work arrangements, or would you like to change anything about your job, hours, pay, or status?

very happy very unhappy
5 4 3 2 1

BOTH

INCOME: If you feel comfortable telling us, we'd like to know how much each of you make before taxes. Look on the card and give number which fits the amount of your income (you can use the weekly, monthly or yearly column whichever is easier).

INCOME SCALE: hand the cards to each parent

43. Mother's income_____

44. Father's income_____

BOTH

CHILD CARE: Who cares for your children when you are at work? (asked to BOTH)

45. During school year (if applicable): check all that apply and get details

--Before school program or care
--After school program
--Day care center
--Home day care arrangements (in someone else's home)
--Babysitter in your home
--Neighbor
--Friend
--Relative
--Older sibling
--Child cares for self
--A combination of the above, depending on the day of the week. Give specifics.

46. During the summer (if applicable): check all that apply and get details

--Recreational program
--Day camp (for example YMCA)
--School program
--Day care center
--Home day care arrangements (in someone else's home)
--Babysitter in your home
--Neighbor
--Friend
--Relative
--Older sibling
--Child cares for self
--A combination of the above, depending on the day of the week, or the month. Give specifics.

47. Who cares for your children in the evening or on weekends when you are away from home?

--Babysitter in your home
--Day care center
--Home day care
--Neighbor
--Friend
--Relative
--Older sibling
--Child cares for self

48. How satisfied are you with your child care?

Very satisfied				Not at all
5	4	3	2	1

49. Was arranging child care a problem for you?

Severe problem				No problem
1	2	3	4	5

HOUSEHOLD RESPONSIBILITY AND DIVISION OF LABOR

BOTH

50. Who takes responsibility for seeing that household chores are done?

51. What happens when things don't get done; who does them?

52. Do the children have chores?

53. What does each child do?

54. What happens when they don't do them?

55. Is there an allowance given or payment for chores done by the children? Allowance Payment for chores None

56. How are household jobs divided up? Who does what? Below is a list of common chores, or jobs which need to be done around the house. Please mark which member of the family usually does each job. Choose from the following answers:

a) Wife always or almost always does the chore
b) Wife sometimes and husband sometimes
c) Husband always or almost always
d) Child or children ususally do it
e) Everyone does his or her own
f) Someone outside the family paid to do it
g) Not done in the family

LIST OF CHORES

--Cooking meals to be eaten at home

--Setting the table

--Cleaning the table

--Food shopping

--Household repairs

--Dusting

--Straightening up the house

--Vacuuming

--Washing dishes

--Drying dishes

--Clean bathroom

--Clean kitchen

--Making lunches to go

--Putting clothes in the laundry hamper

--Sweeping the floor

--Mopping the floor

--Raking the yard

--Cutting the grass

--Gardening

--Trimming or pruning shrubs

--Cleaning out the gutters on the house

--Loading the dishwasher

--Cleaning drawers and closets

--Feeding and care of pets

--Washing and folding clothes

--Ironing clothes

--Picking up toys or games

--Paying bills

--Taking car in for repairs

--Making repairs on the car

--Washing the car

--Preparing taxies

--Making the beds

--Washing windows

--Balancing the checkbook

--Arranging for babysitter

FAMILY DECISION-MAKING

BOTH

Decision-Making: We would like to understand more about the process of how families make decisions about issues that concern the whole family. Please help us by answering the following questions.

51. Please think about the last time you had to make a decision about spending a large amount of money for something like a car, television, refrigerator, etc. (don't count the task you just did).

a) How was the decision made?

Group consensus (all family members having to agree)____
Majority rule____
Parents' decision____
Children's decision____
Individual family member decision____
Other_____

b) Who supported whom in the decision-making?

mother-father____ father-older child____

mother-older child____ father-younger child____

mother-younger child____ child-child____

other_____

58. Please think about the last time you had to make a decision about one or more of your children. Decisions about children might include such things as curfew times, where the child(ren) will go to summer camp, allowances, etc.

a) How was the decision made?

Group consensus (all family members having to agree)____
Majority rule____
Parents' decision____
Children's decision____
Individual family member decision____
Other_____

b) Who supported whom in the decision-making?

mother-father____ father-older child____

mother-older child____ father-younger child____

mother-younger child____ child-child____

other_____

59. Please think about the last time you had to make a decision about chores that had to be done around the house (e.g. cutting the grass, doing laundry, working on the car, preparing a meal, etc.)

a) How was the decision made?

Group consensus (all family members having to agree)____

Majority rule____
Parents' decision____
Children's decision____
Individual family member decision____
Other_____

b) Who supported whom in the decision-making?

mother-father____ father-older child____

mother-older child____ father-younger child____

mother-younger child____ child-child____

other_____

60. Please think about the last time you had to make a decision about how free time would be used. The use of free time might include such things as family vacation plans, a weekend outing, an evening outing, or individual family member' plans for free time.

a) How was the decision made?

Group consensus (all family members having to agree)____
Majority rule____
Parents' decision____
Children's decision____
Individual family member decision)____
Other_____

b) Who supported whom in the decision-making?

mother-father____ father-older child____

mother-older child____ father-younger child____

mother-younger child____ child-child____

other_____

FAMILY VALUES

MOTHER

61. Were you raised in any particular religion? If so, what was it?_____

62. How active were you and your family in that church? very active, moderately active, somewhat active, not too active, inactive.

63. Do you attend church now? If so, which? [Get denomination rather than particular name.]

64. How active are you and your family in that church? very active, moderately active, somewhat active, not too active, inactive.

FATHER

65. Were you raised in any particular religion? If so, which?_____

66. How active were you and your family in that church? Very active, moderately active, somewhat active, not too active, inactive

67. Do you attend church now? If so, what denomination is it?_____

68. How active are you and your family in that church? very active, moderately active, somewhat active, not too active, inactive.

MOTHER

69. How is your family different from the family you grew up in? Differences can be things like whether you work or not, differences in religious or political beliefs, whether you were raised on a farm or in the city, differences in how you are raising your children, etc.

70. How do you think that these differences will affect your children?

71. Have there been any changes in your family since your children were born, such as changes in jobs, child care, mother working or not working and the like?

72. If so, how do you feel that these changes have affected your children?

73. What are your primary values in child rearing?

74. What do you really want to give your children to prepare them for adult life?

75. What are your major worries about or for your children?

FATHER

76. How is your family different from the family you grew up in? Differences can be things like the type of job you have, differences in religious or political beliefs, whether you were raised on a farm or in the city, differences in how you are raising your children, etc.

77. How do you think that these differences will affect your children?

78. Have there been any changes in your family since your children were born, such as changes in jobs, child care, mother working or not working and the like?

79. If so, how do you feel that these changes have affected your children?

80. What are your primary values in child rearing?

81. What do you really want to give your children to prepare them for adult life?

82. What are your major worries about or for your children?

APPENDIX H

FAMILY COALITION RATING FORM AND CODING MANUAL

FAMILY POWER AND DECISION-MAKING COLLECTIVE POWER DYNAMICS AND COALITIONAL PROCESSES IN NORMAL (NONCLINICAL) FAMILIES

CODING MANUAL VIDEOTAPE BEHAVIORAL RATING SYSTEM

INTRODUCTION

This manual will provide a brief explanation of the behavioral rating system developed for the Family Power and Decision-Making/Interaction Patterns of Normal Families project, which you will be using to rate family videotapes. Please read it thoroughly before beginning any ratings.

BACKGROUND

You will be rating videotapes of families seen as part of the Family Power and Decision-Making/Interaction Patterns of Normal Families study. Families are identified through the public school system. They are contacted by letter and telephone and are invited to participate in the study if they meet the criteria of two-parent intact status with at least one child (theirs) between the ages of six and twelve and no family member currently in psychotherapy or special program for the handicapped. As part of the testing process, families are videotaped for 10 minutes as they engage in a structured decision-making task. The task was designed to create a conflict situation and to stimulate the formation of coalitions between and among family members.

OBJECTIVES

The task to be accomplished is threefold: (1) to RECORD coalitions (supportive acts) that are observed between family members during the 10-minute tape segment; (2) to RATE each family's decision-making mode (forced-choice ratings); and (3) to IDENTIFY the final decision and its originator. Therefore, you will be rating 1 videotape for each family according to the criteria outlined above.

CODING METHOD

The coding method involves several steps that should be followed in sequence. The step-by-step procedure is outlined below and should guide your approach to the videotape coding.

Step 1: Record identifying information on the rating form. This information will be provided for you on the videotape cover. This information will include (1) Family ID, (2) Rater ID, (3) Rater Name, (4) Date of Rating, (5) Family Members Present (in all instances both Mother and Father will be present), (6) Age, Sex and Identifying Information about the children (feel free to write in additional information to help you distinguish the children).

Step 2: You will view the 10-minute videotape segment through one time to familiarize yourself with the family. During this first viewing you will only be looking for the presentation of ideas by family members. Do NOT look for supportive acts at all during this initial viewing. You will record each family member's idea for the decision-making task on the rating form. If a family member changes or modifies his/her idea during the 10-minute segment, record each idea he/she presents. You will record the family's final decision and the originator of the idea on the rating form.

Step 3: You will view the 10-minute videotape segment through a second time. This time you will be recording the supportive acts you observe during the 10-minute decision-making task by placing a slash mark in the appropriate box on the rating form. Instructions and descriptors of supportive acts will follow in this manual. Feel free to express any thoughts, concerns, questions, etc., in the space provided for rater's comments.

Step 4: After completing the tabulation of supportive acts between family members, you will do two simple calculations using the frequencies you have generated. First, you will aggregate the frequencies by dyad as indicated on the rating form. For example, you will obtain the frequency of supportive acts in the Mother-Father dyad by adding the slash marks in the box reflecting Father supporting Mother with the slash marks in the box reflecting Mother supporting Father. You will continue this process through the remaining dyads as indicated on the rating form. Second, you will calculate the total number of supportive acts observed in the family videotape by adding together all slash marks in the frequency table.

Step 5: After completing Steps 1-4 above, you will make a global assessment of the decision-making mode employed by the family in the decision-making task. This is a forced-choice response and therefore you must select ONE category from those provided on the rating form (i.e., group consensus, majority rule, parents' decision, children's decision, individual family member decision or other [please specify]).

For Your Information: Take a break before moving on to the next family videotape! Fatigue and viewer fade can be very strong after two viewings of a videotape.

For reliability check and training tapes, two or more raters will reach consensus about the RECORDINGS of the frequencies of supportive acts between family members. When attempting to reach consensus, keep in mind that differences in background and experience with children and families will affect observations of supportive acts between family members. During the training and reliability sessions it will be useful to discuss differences in perceptions and hypothesize how your own background and experiences affect your perception on the ratings. In addition, group process can also be an important and potentially biasing element in rankings using the consensus method. If possible, try to be aware of the group process that emerges within the rater group.

RATING SCALE -- COALITIONS (SUPPORTIVE ACTS)

A coalition is defined as existing when family members jointly use their resources to control a decision. Operationally, a coalition refers to a supportive statement or action manifested by one family member toward the position, idea or stand of another family member in a conflictual family situation (in this study the decision-making task is the conflictual family situation). Simple frequencies of observed supportive acts occurring during the 10-minute videotape segment will be recorded by the raters. The following descriptors of the rating scale will provide detailed information on how to rate supportive acts between family members.

Supportive Acts

Include

1) Nonverbal behaviors such as head nodding or applause immediately following the presentation of an idea by one family member.

2) Directly and/or overtly affirmative statements immediately following the presentation of an idea by a family member (e.g., "Yeah, that's a good/great idea").

3) Agreement to a modification or elaboration of one's own idea by another family member. The modified idea becomes other family member's idea from then on.

4) Affirmative responses to solicited opinions about a family member's idea (e.g., a "yes" vote when polled about most desirable option or idea).

5) Elaborations on the positive aspects of another family member's idea.

6) Capitulations and vocalized support of another family member's idea.

7) Defense of another family member's right to an idea when others perceive that member as self-serving.

8) Affirmations of a family member's general idea (e.g., taking a trip) accompanied by elaborations or specifications (e.g., "Let's go to New York").

9) A family member's efforts to convince another family member to go along with yet another family member's idea.

10) Summary statement by one family member delineating the "final decision" that incorporates another family member's idea.

11) Duplication of another family member's idea as a supportive act unless it occurs in the initial presentation of ideas.

Exclude

1) Initial presentation of identical ideas by family members. (Note: Subsequent reiteration of identical ideas will be coded as support for the other family member's position). This is the only time bi-directional support will be coded.

2) Simple reiterations of other family members' positions by one family member following a vote-taking exercise for the purpose of clarification.

3) Statements doubting the practicality or feasibility of another family member's idea yet agreeing to support the idea conditional upon removal of impracticalities.

VIDEOTAPE RATING FORM FOR BEHAVIORAL OBSERVATIONS
OF SUPPORTIVE ACTS BETWEEN FAMILY MEMBERS

Family ID _____

Rater ID _____

Rater Name _____

Date of Rating _____

Family Members Present:

Father _____

Mother _____

Older Child: Age _____ Sex _____

Identifying Information: _____

_____

Younger Child: Age _____ Sex _____

Identifying Information: _____

_____

Re: Decision-Making Task

Father's Idea(s) _____

Mother's Idea(s) _____

Older Child's Idea(s) _____

Younger Child's Idea(s) _____

Final Decision _____

Whose Suggestion _____

Instructions: Record the supportive acts you observe during the 10-minute decision-making task by placing a slash mark in the appropriate box.

Frequency Table of Supportive Acts Between Family Members

	Person Supported			
Supporter	Father	Mother	Older Child	Younger Child
Father	X			
Mother		X		
Older Child			X	
Younger Child				X

Rater's Comments:

Decision-Making Mode: (Check one)

Group consensus (all family members having to agree) ____
Majority rule ____
Parents' decision ____
Children's decision ____
Individual family member decision ____
Other ____

Frequencies of Supportive Acts by Dyad:

F->M/M->F ____
F->O/O->F ____
F->Y/Y->F ____
M->O/O->M ____
M->Y/Y->M ____
O->Y/Y->O ____
Other (specify) ____

Total Number of Supportive Acts: ____

VIDEOTAPE RATINGS OF COALITIONS IN NONCLINICAL FAMILIES
DURING A 10-MINUTE SIMULATED DECISION-MAKING TASK

Family ID _____

Rater ID _____

Rater Name _____

Date of Rating _____

Family Members Present:

Father _____

Mother _____

Older Child: Age _____ Sex _____

Identifying Information: _____

_____

Younger Child: Age _____ Sex _____

Identifying Information: _____

_____

Instructions: After viewing the 10-minute decision-making task on videotape, make a global assessment of the coalitions you observed between family members. Please score the strength of the 6 types of potential coalitions on a scale of 0 (no coalition present at all) to 10 (strongest possible coalition present).

Coalition Type	Score
M->F/F->M	
M->O/O->M	
M->Y/Y->M	
F->O/O->F	
F->Y/Y->F	
O->Y/Y->O	
Other (specify)	

Rater's Comments: